Digitized by the Internet Archive
in 2016

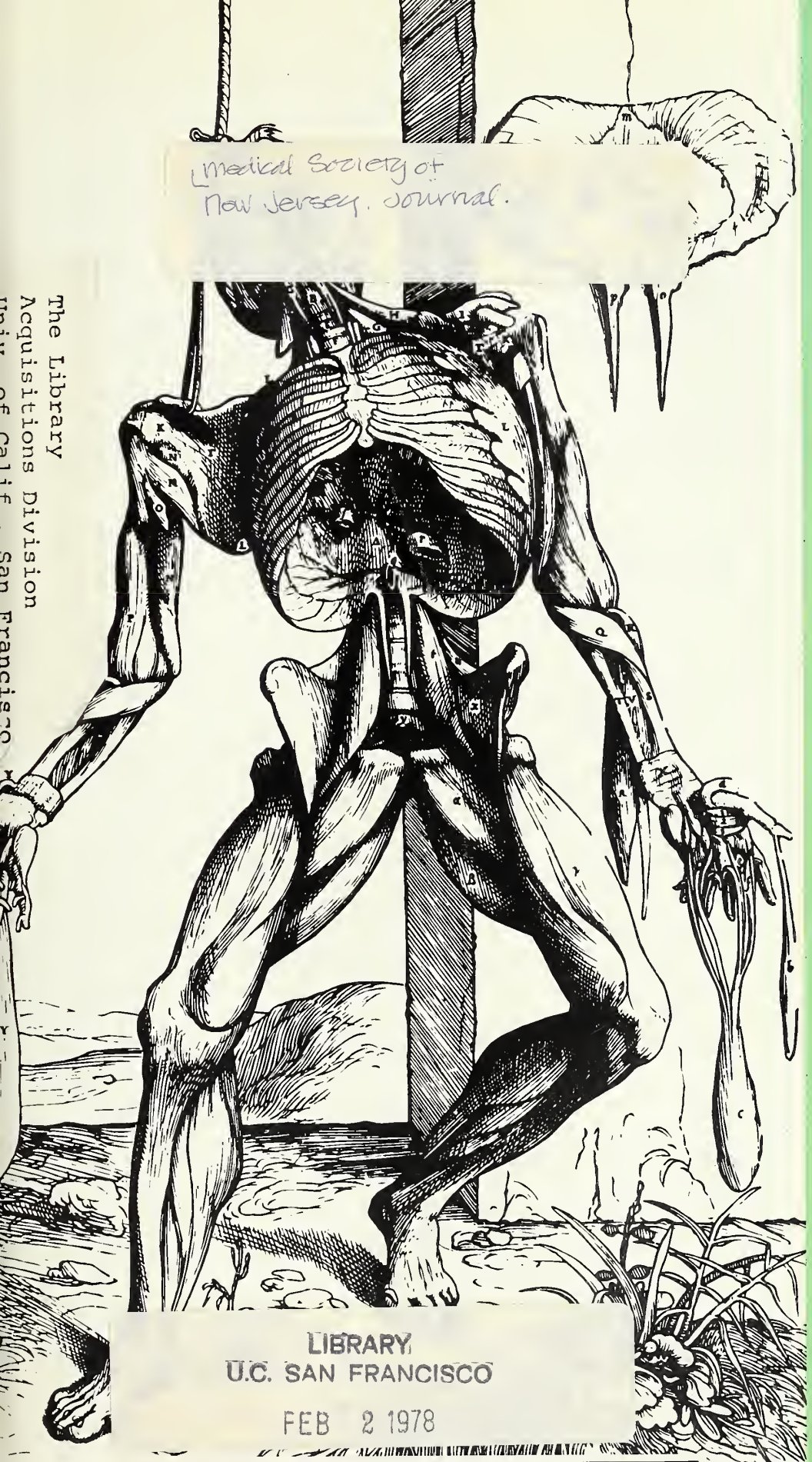
https://archive.org/details/journalofmedical751unse

Medical Society of
New Jersey. Journal.

The Library
Acquisitions Division
Univ. of Calif., San Francisco

January 1978

Journal of the Medical Society of New Jersey



LIBRARY
U.C. SAN FRANCISCO
FEB 2 1978

The Musclemen at Rutgers

Anovulation: Etiology, Investigation, Treatment
Philip Florio, M.D., et al.

Immunologic Hematologic Diseases in Infancy
B. R. Ryan, M.D., et al.

Pylephlebitis and Liver Abscesses Due to Bacteroides
N. Rosenberg, M.D., et al.

Complete Table of Contents on Page 4

Check List For Savings

Under The Medical Society of New Jersey

Endorsed Insurance Plans

NEW HIGHER LIMITS	$4600 Monthly Accident and Health
TAX DEDUCTIBLE PREMIUM	$5,000 Professional Overhead Expense Plan
INCREASED FROM $150,000	$250,000 Term Life Insurance
$250,000 COVERAGE	Quarter-Million-Dollar Major Expense Plan
HIGH LIMITS— LOW COSTS	$200,000 Six Point High-Limit, Accidental Death, Dismemberment, Total Disability
EXTRA MONEY WHEN HOSPITALIZED	$60 a day Hospital Money-Indemnity Plan
$7500—T5%	$7500 Tax-deductible KEOGH Plan and Corporate Master Plan

CHECK THIS LIST AGAINST YOUR COVERAGES . . . ASK FOR FREE NO-OBLIGATION INFORMATION ABOUT THE NEW MONEY-SAVING PLANS

E. & W. BLANKSTEEN AGENCY, INC.

E. & W. BLANKSTEEN

75 MONTGOMERY STREET • JERSEY CITY, N.J. 07302

(201) 333-4340

President's Letter

Dear Doctor:

I am urging all of my colleagues to join The Academy of Medicine of New Jersey, the teaching arm of the Medical Society of New Jersey and one of the AMA's first approved accrediting (Category I) sources for CME in New Jersey, a fact which lends considerable prestige to this body.

The Academy sponsors or cosponsors over 1100 CME meetings annually and publishes a monthly program and yearly calendar for its members. The speakers' bureau members participate in over 200 roving symposia annually at community hospitals and county medical societies. Each year the Academy also holds 12 to 15 major symposia which focus on a broad range of topics of current medical interest, presented by eminent speakers. Members receive discounted registration fees whenever possible. The Academy also provides administrative and secretarial services to a growing number of state specialty societies.

The present membership of the Academy is 1500, about 16 percent of the Medical Society of New Jersey's membership. Dues are $45 yearly, approximately 28 percent of the overall income of the Academy. The Academy of Medicine of New Jersey needs greater participation from the general MSNJ membership to remain a viable arm of that Society.

Certainly you will be interested to know that there are additional member benefits, including extensive library services encompassing full faculty privileges at the CMDNJ library in Newark.

Your membership, participation in, and support of this worthwhile educational body is sought eagerly. A sample of the application for Fellowship is included here.

Cordially yours,

Frank R. Begen, M.D.
President

(*See following page for sample application*)

344508

THE ACADEMY OF MEDICINE OF NEW JERSEY
2424 Morris Avenue
Union, New Jersey 07083
(201) 687-8780

APPLICATION FOR FELLOWSHIP

Founded 1911

Name _____ MD PhD DDS DO OTHER
Please Print LAST FIRST MIDDLE

Office Address _____ Phone _____
ZIP CODE

Home Address _____ Phone _____
ZIP CODE

Birthplace: _____ Date of Birth _____ Citizen of U.S.A.? _____

College (Name, Location, Date, Degree)

_____

Medical, Dental or Professional School (Name, Location, Date, Degree)

_____

State License (State, Date, License Number)

_____

Specialty Certification (Board, Date) _____

List other Professional Societies of which you are a Member

_____

Hospital Affiliations:

_____

Teaching or Academic Appointments:

_____

Military Service with Dates:

_____

Special Interests – Scientific or Vocational:

_____

List (3) Academy Fellows as Sponsors:

(1) _____

(2) _____

(3) _____

Kefzol® I.M./I.V.

cefazolin sodium

Ampoules, equivalent to 500 mg., 1 Gm., and 10 Gm. of cefazolin



Additional information available to the profession on request.
Eli Lilly and Company
Indianapolis, Indiana 46206

700773

Clinical experience & continuing confidence

KAON® ELIXIR was introduced in **1954,** followed by KAON® TABLETS in **1963.** Decades of clinical experience indicate acceptability, effectiveness, and safety in the majority of patients; should abdominal pain occur, therapy should be discontinued. Both have been taken by patient after patient, day after day, year after year, to correct potassium deficiencies. Both have consistently demonstrated their value when diet alone is inadequate for potassium replacement.

Kaon® Elixir
(potassium gluconate)

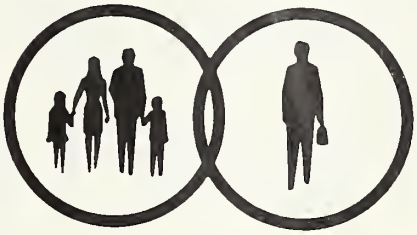
Kaon® Tabs
(potassium gluconate)

BRIEF SUMMARY
Kaon Tablets/Kaon Elixir

KAON® (potassium gluconate) TABLETS

Description: Each sugar-coated tablet supplies 5 mEq. of elemental potassium (as potassium gluconate 1.17 Gm.). Kaon Tablets are sugar coated, not enteric coated, which favors dissolution in the stomach and absorption before reaching the small intestine where the lesions with enteric potassium chloride have occurred. The sugar coating merely adds to palatability and ease of swallowing, not to delay absorption as does the enteric coating.
Indications: Oral potassium therapy for the prevention and treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.
Contraindications: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause.
Warning: There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides or certain other oral diuretics. These small-bowel lesions have caused obstruction, hemorrhage and perforation. Surgery was frequently required and deaths have occurred. Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Coated potassium tablets should be used only when adequate dietary supplementation is not practical.
Precautions: In response to a rise in the concentration of body potassium, renal excretion of the ion is increased. With normal kidney function, it is difficult, therefore, to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentra-

NEW JERSEY ACADEMY OF FAMILY PHYSICIANS



ANNUAL CONVENTION

FRIDAY, MARCH 10, 1978 TO MONDAY, MARCH 13, 1978

held at the

CHERRY HILL HYATT HOUSE

Cherry Hill, New Jersey

"Family Medicine Update 1978"

Outstanding authorities on diagnosis & treatment of Pulmonary diseases—
practical EENT— G.U.—Orthopedics—stress testing—shock.

* * * * * * * *

ıtertainment nightly

Ladies program & tours

Scientific Sessions carry 16 Hours Prescribed AAFP & AMA Category I Credits

ADVANCED REGISTRATION REQUIRED

---

or additional information write:

NJAFP, 144 South Harrison Street, East Orange, New Jersey 07018

or

Salvatore V. Dallio, M. D., Convention Chairman

(201) 473-3896



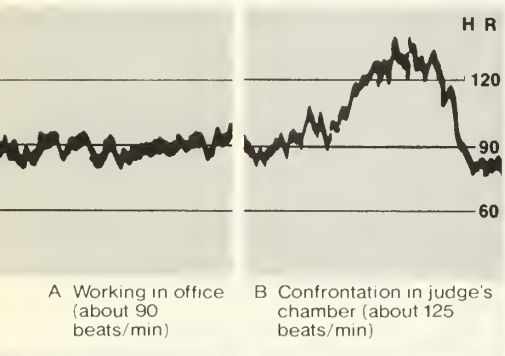
"**Our sex life is nil...**" A problem of the first magnitude to many pc infarct patients and their mates...patients are often reluctant to broach tl subject; physicians may frequently overlook its implications. This ne 16mm film combines candid patient interviews with discussions by Di Herman Hellerstein, Thomas Hackett, Albert Kattus, Richard Stein, Carr Witten and Lenore Zohman. Film and related monograph comprise AAFP credit hours. To arrange viewing, write Burroughs Wellcome C Educational Services Department, Research Triangle Park, N.C. 27709 contact your B.W. Co.® representative.

Sex and the heart patient

A film every doctor should see

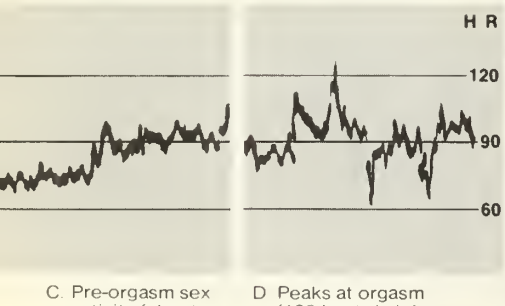
The energy cost of sex to the heart is relatively modest.
Over 80% of post-coronary patients can ultimately resume sexual activity without serious risk. Hellerstein and Freedman demonstrate that mean maximal heart rate during orgasm with spouse (as opposed to extra-marital sex) in 14 post-infarct patients is lower than that during usual occupational activity.

Representations below of actual EKG readings of an attorney, post MI, illustrate the point:



A Working in office (about 90 beats/min)

B Confrontation in judge's chamber (about 125 beats/min)



C Pre-orgasm sex activity (about 90 beats/min)

D Peaks at orgasm (120 beats/min)



Fear of pain greatest deterrer to post MI sex
In the multitude of MI patients wi angina, pain is due to diminishe coronary reserve and increase myocardial oxygen demand, pi cipitated by sex, other exciteme and improper exercise. Angin pain, however, can be relieved, ar its recurrence mitigated.

Cardilate® (erythrityl tetranitrate) increases exercis tolerance.
Cardilate relieves anginal pain ar prevents its recurrence, therel allowing increased activity.
Commencing to work in as little a 2 to 5 minutes, Cardilate protec against recurrence of angina for least 2 hours.

Available in both sublingual ar chewable forms, Cardilate is a vers tile, convenient agent to help mal the angina patient's life more livab

Cardilate®
(erythrityl tetranitrate)

THE DEPARTMENT OF MEDICINE
and
THE PAGE AND WILLIAM BLACK POST-GRADUATE SCHOOL OF MEDICINE
of the MOUNT SINAI SCHOOL OF MEDICINE (CUNY)

Announce a Postgraduate Course

NEW APPROACHES TO OLD PROBLEMS IN INTERNAL MEDICINE

Under the Direction of
RICHARD GORLIN, M.D.
HARRIET S. GILBERT, M.D.
and Faculty of the Mount Sinai School of Medicine

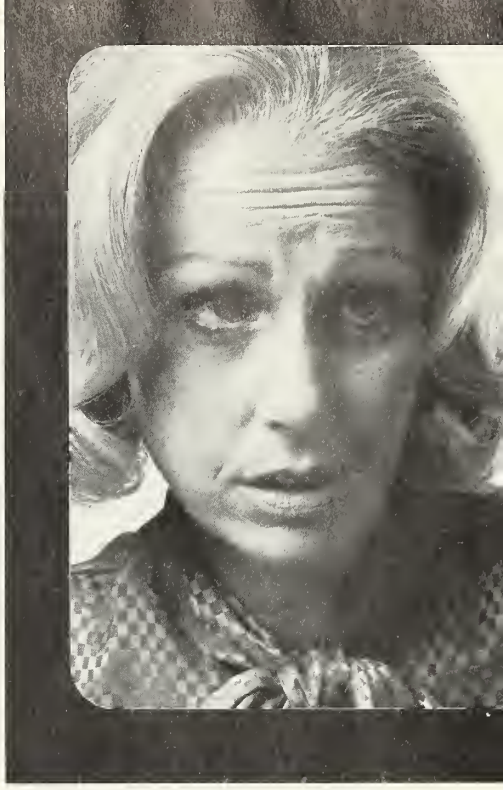
May 16-19, 1978—Tuesday-Friday—
9:00 AM to 5:00 PM—(4 Sessians)

ne practice af Internal Medicine presents a cantinuing nallenge to integrate new cancepts af diagnasis and nerapy inta the cantext af patient management. This our-day multidisciplinary caurse in Internal Medicine is esigned for the practicing physician and will cut acrass ubspecialties ta address cammanly encauntered clinical tuatians by means af cancise lectures, panel discussians nd warkshaps. Each sessian will be prablem-ariented and ased an illustrative case material. Oppartunity will be ravided for registrants ta clarify questians arising fram neir awn clinical experience thraugh questian-and-nswer periods and infarmal discussians with faculty. essians will be devated ta recent advances in cardialagy, ndacrinalagy and metabalism, infectiaus disease, rheu-atalagy, hematalagy and oncalagy, pulmanary disease, enal disease, gastraenteralagy and liver disease. Inter-isciplinary discussians will be devated ta the use af beta lacking agents in medical management; an averview af ancer therapy thraugh discussian af clinical models af uccess, failure and recent breakthraughs; the relatian-hip af hyperlipidemia, thrambasis and atherasclerasis; iaphysical breakthraughs in Internal Medicine—the cur-ent impact and future pramise af camputerized axial omagraphy, sanagraphy and nuclear imaging. A syllabus ummarizing the questians ta be addressed by each peaker, pertinent clinical material, and references will e distributed. One afternaan will be devated ta par-cipatian in small subspecialty warkshaps ar may be spent ith members af the faculty wha will be available by ad-ance arrangement ta discuss topics of particular interest the registrants. This sessian will be fallawed by at-ndance at Medical Grand Raunds.

FEE $200

his caurse will be given at the Mount Sinai Medical Cen-er, New York City, New Yark.

PPLY TO: Directar, The Page and William Black Past-raduate Schaal of Medicine, Maunt Sinai School af ledicine, One Gustave L. Levy Place, New Yark, New ork 10029. Tel.: (212) 650-6737



Cardilate® (erythrityl tetranitrate)
INDICATIONS: For the prophylaxis and long-term treatment of patients with frequent or recurrent anginal pain and reduced exercise tolerance associated with angina pectoris, rather than for the treatment of the acute attack of angina pectoris, since its onset is somewhat slower than that of nitroglycerin

PRECAUTIONS As with other effective nitrites, some fall in blood pressure may occur with large doses.

Caution should be observed in administering the drug to patients with a history of recent cerebral hemorrhage, because of the vasodilation which occurs in the area. Although therapy permits more normal activity, the patient should not be allowed to misinterpret freedom from anginal attacks as a signal to drop all restrictions

SIDE EFFECTS No serious side effects have been reported. In sublingual therapy, a tingling sensation (like that of nitroglycerin) may sometimes be noted at the point of tablet contact with the mucous membrane. If objectionable, this may be mitigated by placing the tablet in the buccal pouch. As with nitroglycerin or other effective nitrites, temporary vascular headache may occur during the first few days of therapy. This can be controlled by temporary dosage reduction in order to allow adjustment of the cerebral hemodynamics to the initial marked cerebral vasodilation. These headaches usually disappear within one week of continuous therapy but may be minimized by the administration of analgesics.

Mild gastrointestinal disturbances occur occasionally with larger doses and may be controlled by reducing the dose temporarily

HOW SUPPLIED 10 mg chewable scored tablets, bottle of 100. Also 5, 10 and 15 mg oral/sublingual scored tablets in bottles of 100. 10 mg oral/sublingual scored tablets also supplied in bottles of 1,000

Also available Cardilate®-P brand Erythrityl Tetranitrate with Phenobarbital* Tablets (Scored).
(*Warning may be habit-forming.)

Wellcome
Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709



THE STRENGTH TO OVERCOME EXCESSIVE ANXIETY IN THE ELDERLY CARDIAC PATIENT.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

VALIUM®(diazepam)IV

2-MG TABLETS B.I.D. OR T.I.D.

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

anuary 1978

ournal of
ne Medical
ociety of
New Jersey

merica's
rst
edical
ciety

olume 75
umber 1

ages 1-112

9 **PRESIDENT'S LETTER**

EDITORIALS

14 The Hunterdon Story

16 Musclemen of Andreos Vesolius

16 NHI "Town Meeting" (?)

ORIGINAL ARTICLES

21 Anovulotion: Etiology, Investigotion ond Treotment
Philip Florio, M.D.; C. A. Gregori, M.D.; J. L. Breen, M.D., Livingston

37 Immunologic Hemotologic Diseoses in Infoncy
B. R. Ryon, M.D., Morristown; T. R. Walter, M.D., Nework

43 Potients, Fomilies, and Heolth Professionols
Raymond S. Duff, M.D., New Haven

CASE REPORTS

49 Pylephlebitis ond Liver Abscesses Due to Bocteroides
N. Rosenberg, M.D.; S. F. Konigsberg, M.D.; S. B. Schworcz, M.D., New Brunswick

52 Transurethrol Resection of Blodder Neck in Neurogenic Blodder Secondory to Myelomeningocele
J. S. Novarro, M.D.; S. D. Modduri, M.D.; et ol., Nework

56 Mucocutoneous Lymph Node Syndrome with Vesicles
P. M. Stodelmon, M.D.; R. M. Joouen, M.D.; S. F. Wang, M.D., Morristown

SPECIAL ARTICLE

62 The Sonctity of Life
C. Everett Koop, M.D., Philadelphio

COMMENTARY

69 Medicoid Modness

NEW JERSEY DOCTORS' NOTEBOOK

73 Trustees' Minutes: November 20, 1977

78 Report from the Foundotion

80 AMA Notionol Heolth Insuronce Proposol

82 CMDNJ Notes

84 Theropeutic Drug Informotion Center

86 Stotement by the Governing Body of Jehovoh's Witnesses

88 Physicians Seeking Locotion in New Jersey

93 **LETTERS TO THE JOURNAL**

95 **ANNOUNCEMENTS**

96 **MEETINGS OF MEDICAL INTEREST**

104 **OBITUARIES**

106 **BOOK REVIEWS**

212th Annual Meeting
May 6-9, 1978
Atlantic City

A Difference in Theophylline Therapy

micro-pulverized

BRONKODYL® Capsules

brand of theophylline, USP anhydrous



- Blood levels as fast as an elixir
- With minimal gastric irritation*

*Please see complete prescribing information, a summary of which follows.

DESCRIPTION:
Each green and white hard gelatin capsule contains theophylline USP anhydrous, 200 mg., in a micro-pulverized form. Each brown and white hard gelatin capsule contains 100 mg. The elixir contains 80 mg. theophylline per 15 ml. in a 20% alcohol elixir (approximately 20 calories, 0.9 gm carbohydrate per tablespoonful).

ACTION: Theophylline is a methylxanthine which relaxes the smooth musculature of the bronchioles through its inhibition of the conversion of cyclic adenosine monophosphate to adenosine monophosphate by phosphodiesterase. It also has diuretic, cardiotonic, and CNS stimulant effects.

INDICATIONS: Bronkodyl is indicated for symptomatic relaxation of bronchiolar spasm in the chronic obstructive bronchopulmonary diseases; e.g., bronchial asthma, chronic bronchitis and pulmonary emphysema.

CONTRAINDICATIONS: Bronkodyl is contraindicated in persons known to have had serious idiosyncratic responses to theophylline, its salts, or the other methylxanthines, theobromine, or caffeine and may be contraindicated in peptic ulcer.

WARNINGS: All methylxanthines should be used with caution in children and in others who are currently taking bronchodilator products, especially in rectal dosage form, which may contain theophylline or related drugs.

USAGE IN PREGNANCY: Although theophylline has been used for many years, with no evidence of adverse fetal effect or teratogenicity, its safety in pregnancy has not been established. Therefore use of Bronkodyl during lactation or in women of childbearing potential requires that possible benefits of the drug be weighed against possible hazards to fetus or child.

PRECAUTIONS: Bronkodyl should be used with caution in patients with cardiac or circulatory disease.

ADVERSE REACTIONS: Gastrointestinal: Epigastric distress, nausea, vom ing. Cardiovascular: palpitations. CNS: Insomnia, restlessness, irritability, c vulsion.

DOSAGE AND ADMINISTRATION: Adults: Usual dosage of Bronkodyl is 2 mg. every 6 hours (four doses in each 24 hours). This dosage may be adjus to reflect individual clinical response as an indication of slow or rapid met olism of the drug. If adverse reactions are encountered, each dose may reduced, or the interval between doses may be lengthened, or both. If clini response is not satisfactory, indicating possible rapid inactivation of the dr dosage may be gradually increased to achieve the desired response. In so instances of either too slow or too rapid metabolism, plasma levels of th phylline should be determined and dosage adjusted accordingly to achie levels above 10 mcg/ml, but not to exceed 20 mcg/ml.

Dosage in Children: Usual dosage should be based on administration of 10 per kg per 24 hours, divided in 4 doses per day, given every 6 hours. As this m not be possible with use of the capsules, Bronkodyl elixir may be used. Th phylline saliva levels (approximately 60% of simultaneous blood levels), m facilitate dosage adjustments, especially in children, to obtain appropri response.

HOW SUPPLIED:
Bronkodyl 100 mg., brown and white capsules in 100's, Code #1831.
Bronkodyl 200 mg., green and white capsules in 100's, Code #1833.
Bronkodyl Elixir, 80 mg. per 15 ml, in pints, Code #1835.

BREON LABORATORIES INC.
90 Park Avenue, New York, N.Y. 10016

THE MEDICAL SOCIETY OF NEW JERSEY

Founded July 23, 1766

Officers and Trustees

PRESIDENT
Frank R. Begen, M.D. (Bergen) ..... Teaneck
PRESIDENT-ELECT
Charles S. Krueger, M.D. (Burlington) ..... Mount Holly
FIRST VICE-PRESIDENT
Alfred A. Alessi, M.D. (Bergen) ..... Hackensack
SECOND VICE-PRESIDENT
George L. Benz, M.D. (Essex) ..... Newark
IMMEDIATE PAST-PRESIDENT
John S. Madara, M.D. (Salem) ..... Salem
SECRETARY
Arthur Bernstein, M.D. (Essex) ..... Maplewood
TREASURER
Rudolph C. Gering, M.D. (Mercer) ..... Trenton

Trustees

CHAIRMAN
James S. Todd, M.D. (1980) (Bergen) ..... Ridgewood
Meyer L. Abrams, M.D. (1979) (Burlington) ..... Willingboro
Augustus L. Baker, Jr., M.D. (1979) (Morris) ..... Dover
Edward G. Bourns, M.D. (1978) (Union) ..... Westfield
Frank Campo, M.D. (1978) (Mercer) ..... Trenton
S. Thomas Carter, Jr., M.D. (1978) (Camden) ..... Collingswood
John J. Crosby, Jr., M.D. (1978) (Hudson) ..... Jersey City
Anthony P. DeSpirito, M.D. (1979) (Monmouth) .... Neptune City
Sherman Garrison, M.D. (1980) (Cumberland) ..... Bridgeton
Armando F. Goracci, M.D. (1979) (Gloucester) ..... Woodbury
William Greifinger, M.D. (1978) (Essex) ..... Belleville
Richard E. Lang, M.D. (1978) (Passaic) ..... Passaic
Howard D. Slobodien, M.D. (1978) (Middlesex) ..... Perth Amboy
Frank Y. Watson, M.D. (1980) (Essex) ..... Montclair

Councilors

FIRST DISTRICT
(Essex, Morris, Union, and Warren Counties)
Merton L. Griswold, Jr., M.D. (1978) ..... Plainfield
SECOND DISTRICT
(Bergen, Hudson, Passaic, and Sussex Counties)
John L. Olpp, M.D. (1980) ..... Englewood
THIRD DISTRICT
(Hunterdon, Mercer, Middlesex, and Somerset Counties)
Albert F. Moriconi, M.D. (1979) ..... Trenton
FOURTH DISTRICT
(Burlington, Camden, Monmouth, and Ocean Counties)
Frederick W. Durham, M.D. (1978) ..... Haddonfield
FIFTH DISTRICT
(Atlantic, Cape May, Cumberland, Gloucester, and Salem Counties)
John A. Surmonte, M.D. (1980) ..... Penns Grove

AMA Delegates

Louis F. Albright, M.D. (1977) ..... Spring Lake
George L. Benz, M.D. (1978) ..... Newark
Karl T. Franzoni, M.D. (1978) ..... Trenton
Frank J. Hughes, M.D. (1978) ..... Camden
Emanuel M. Satulsky, M.D. (1978) ..... Elizabeth
James S. Todd, M.D. (1979) ..... Ridgewood
Robert E. Verdon, M.D. (1978) ..... Cliffside Park



January 1978

Publication Committee

Daniel B. Roth, M.D., *Chairman*
Julio C. del Castillo, M.D.
John F. Marshall, M.D.

Editor

Arthur Krosnick, M.D.

Associate Editors

William A. Dwyer, Jr., M.D.
Bernard D. Pinck, M.D.
Richard H. Rapkin, M.D.

Assitant Editor

Marjorie D. Treptow

Advertising Office

Bettie N. Cookson

Executive Director

Vincent A. Maressa

Executive Director Emeritus

Richard I. Nevin

Manuscript Review Board

Jerome Abrams, M.D.
Francis P. Chinard, M.D.
Alfonse Cinotti, M.D.
Arthur Goldfarb, M.D.
Martin Goldfield, M.D.
Robert A. Goldstone, M.D.
M. Jay Goodkind, M.D.
Murray Kahn, M.D.
Sidney Ketyer, M.D.
Bernard J. Koven, M.D.
Henry R. Liss, M.D.
Hugh F. Luddecke, M.D.
Geobel A. Marin, M.D.
Murray Nussbaum, M.D.
Victor Parsonnet, M.D.
Leonard Policoff, M.D.
Irwin Pollack, M.D.
Benjamin Rush, M.D.
Mark M. Singer, M.D.
Leon G. Smith, M.D.
Sheldon D. Solomon, M.D.
Lloyd N. Spindell, M.D.

Published monthly (since 1904), under direction of the Committee on Publication, by The Medical Society of New Jersey, 315 West State St., Trenton, N.J. Printed in East Stroudsburg, Pa. by the Hughes Printing Co. Whole number of issues 881. Member's subscription ($5) is included in Society dues. Rates for nonmembers, $10; outside USA add $4 for postage. Single copies, $1. Address communications to *The Journal*, MSNJ, P.O. Box 904, Trenton, N.J. 08605 (609) 394-3154. Second class postage paid at Trenton, N.J. and additional entry office.

Copyright 1978 by The Medical Society of New Jersey.

"California cardiologists offer advice on how to deal with liquid protein-diet side effects...major medical centers report on the emerging clinical role of ultrasound... pediatricians would ban trampolines... proposed legislation gives the FDA more authority over physician-prescribing..."

Important things are happening that you should know about right away. You'll find them on your desk every two weeks in Medical World News, the newsmagazine of medicine.

Read this one first.

medical world news

A McGraw-Hill publication



Time is the test of all things



tions of potassium ion may cause death through cardiac depression, arrhythmias or arrest. This drug should be used with caution in the presence of cardiac disease.

In hypokalemic states, especially in patients on a salt-free diet, hypochloremic alkalosis is a possibility that may require chloride as well as potassium supplementation. In these circumstances, Kaon (potassium gluconate) should be supplemented with chloride. Ammonium chloride is an excellent source of chloride ion (18.7 mEq. per Gram), but it should not be used in patients with hepatic cirrhosis where ammonium salts are contraindicated. Other sources for chloride are sodium chloride and Diluted Hydrochloric Acid, U.S.P.

It should also be kept in mind that ammonium cycle cation exchange resin, sometimes used to treat hyperkalemia, should not be administered to patients with hepatic cirrhosis.

Adverse Reactions: Nausea, vomiting, diarrhea and abdominal discomfort have been reported. The symptoms and signs of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of QRS complex, changes of the S-T segment, tall peaked T waves, etc.

Overdosage: Potassium intoxication may result from overdosage of potassium or from therapeutic dosage in conditions stated under "Contraindications." Hyperkalemia, when detected, must be treated immediately because lethal levels can be reached in a few hours.

KAON® (potassium gluconate) ELIXIR

Description: Each 15 ml. (tablespoonful) supplies 20 mEq. of elemental potassium (as potassium gluconate, 4.68 Gm.) with saccharin and aromatics. Alcohol 5%.

Indications: See Kaon Tablets.

Precautions: See Kaon Tablets.

In hypochloremic alkalosis, potassium replacement with potassium chloride (e.g., Kaochlor® 10% Liquid) may be more advantageous than with other potassium salts.

Adverse Reactions: See Kaon Tablets.

Overdosage: See Kaon Tablets.

WARREN-TEED
PHARMACEUTICALS INCORPORATED
COLUMBUS, OHIO 43215

EDITORIALS

The Hunterdon Story: Freedom, Economics, and Quality

As the Hunterdon Medical Center in Flemington prepared to celebrate its first quarter century, a basic issue arose which threatened to shake the foundations of this prestigious institution. The HMC administrators and board saw the problem as "a demand among a group of its hospital-based specialists for revision of their 'employed' status to permit them and other specialists to set up practice in the community and to admit their patients to the hospital." A spokesman for the full-time medical staff described the controversy in terms of "physician rights":

"Contrary to the administration statement, there is only one issue confronting us at this time. The specialty staff at HMC seeks the right to be self-employed. The option for self-employment is a right every physician must maintain. No individual, institution, or democratic government has the right to deny the medical profession this option."*

There is no doubt that HMC is unique as a center for the delivery of health care to individual patients and to its community. Conceptually, it has been a leader in public health practice, professional education, and community and patient education. HMC was doing multiphasic screening for unrecognized diabetes, hypertension, venereal disease, and other chronic conditions in the mid-1950's. The Center's Planning Committee describes the HMC concept from its inception in the late 1940's as a "care system," which contrasts with the usual functions of an ordinary general hospital. In this regard, they recognize the role of the 34 family physicians who practice in Hunterdon County's 435 square-mile area, and the specialty care provided by 36 Center-based medical and surgical specialists, but they underscore the "care ethos" of the Center. This features care outside the hospital by way of "a system-wide perspective embracing prevention, patient education and engagement in his own health maintenance, and minimum costs consistent with high quality."

HMC's three-year family practice residency program, one of the first accredited by the AAFP, is regularly filled by six medical school graduates. That this program has produced trained family practitioners for our state is evidenced by the fact that two to three members of each graduating resident class elect to practice in Hunterdon County and that 27 of the 34 active HMC family physicians are graduates of its residency program.

Since its inception, all specialist care at the Center has been provided by salaried physicians with offices on its premises. With its emphasis on family practice, provision of specialty care depended *primarily* on referral of patients to the specialists by family physicians. This triage function was considered paramount at HMC, while restriction of specialist physicians was described as an essential means of encouraging family physicians to practice in Hunterdon County; i.e., curbing the outside practice of specialists avoided the competition between specialists and family physicians in the provision of primary care and the referral of patients to the hospital.

This doctor-doctor and doctor-medical center relationship appeared to be the crux of the controversy, but there were other problems, which, beside the need to be employed by the Board of Trustees and to be hospital-based as criteria for hospital privileges, included a requirement "to purchase from the institution (HMC) all those services necessary to maintain a practice." There was objection to the bylaw requirement which "gave the administration sole authority to appoint all department chairmen, the majority of the medical board members, and all committee chairmen and members." The physicians felt so strongly about the issues that several months ago, out of frustration over failure to negotiate their differences of opinion, 27 of the Center's 36

*Felix G. Salerno, M.D., President, Full-Time Staff.

specialists resigned their positions and obtained legal counsel.

Despite many optimistic and glowing comments in the Center's 214-page report** prepared by a long-range planning committee, with the assistance of a management consulting firm, all has not been "sweetness and light" at the Center.

HMC was one of the first, if not *the* first, New Jersey health institution to investigate the development of a health maintenance organization. This feasibility study, which was sponsored by a Commonwealth Fund grant of about a quarter million dollars, preceded the New Jersey State Department of Health's activity in the development of HMO's. The study's conclusions were mixed; i.e., the concept seemed good for the county, but the demography of its population boded for economic difficulties. In any case, the issue of HMO at HMC was the cause of a previous confrontation between the Board of Trustees and the staff. In this instance, the Board backed off and the HMO project was dropped.

One cannot deny that HMC provides high-quality care in a well-integrated system which frequently has been "cited by medical authorities as a model community health care system." However, it is hard to rationalize the economics of the institution. HMC's President, Dr. Henry E. Simmons, in his summary of the Hunterdon Report, stated that the study "describes and validates how a community, through rational organization and use of its local resources, can provide quality health care at total per capita costs twenty percent less than the average throughout the United States."

The report itself, however, contradicts such optimism. One of its exhibits covering the six-year period from 1971 through 1976, showed that "HMC has accumulated a $2.2 million operating loss. This result is attributable in part to constraints imposed on Blue Cross and Medicaid reimbursement by New Jersey's SHARE program. In greater part, the losses reflect HMC management's willingness to operate a number of programs which are not covered by third parties and cannot break even from charges program beneficiaries will pay." The report went on to state that "HMC has needed to borrow $7.7 million from external sources (besides philanthropy) to fund its operating losses, support expanded operations, and add significantly to physical facilities." If HMC's management cannot correct this negative cash flow situation, "management will move swiftly to cut back programs in a humane but positive manner."

The specialists prepared for a court suit, but this was obviated when the Board agreed to give hospital specialists the right to open private practices in the county. In a brief filed in Chancery Division of Superior Court, the "specialists contended that any system that required physicians to be hospital employees denied them 'freedom of choice' and thus violated the due process of law provisions of the United States Constitution." In essence, the specialists wanted their own practices free of hospital control.

New Jersey Medicine owes a debt of gratitude to the HMC specialists for their courage and willingness to fight for their convictions, and to the HMC Board for its wisdom in making the correct decision. Freedom never has come easily!

Besides the freedom issue, however, one must recognize that the HMC system—laudable as it is—cannot continue to provide high quality patient care and community services, and show bottom line losses in the millions. If programs are cut back, as seems inevitable, quality will suffer.

The governments of this state and nation had better look carefully at the Hunterdon story because it deals with freedom, health economics, and quality of care, which are factual problems of life in the United States today. This health care triangle cannot be regulated out of existence.

A.K.

**The Hunterdon Medical Center Care System Long-Range Plan. Vol. I, Strategic Issues and Actions. Flemington, Hunterdon Medical Center, July 1977.

The Musclemen of Andreas Vesalius

The walls of the spacious entrance lobby to Rutgers Medical School's main science building are adorned by a striking collection of reproductions of anatomical dissection of the human musculo-skeletal system. The following statement on the "Musclemen" was written by former Dean DeWitt Stetten, Jr., in June, 1970:

"Sometime during the fall of 1542 a donkey caravan might have been sighted progressing northward from the city of Padua through the Alpine passes to the city of Basel in Switzerland. Carefully wrapped and strapped to the backs of the donkeys were heavy pear wood blocks on whose polished and oiled surfaces were engraved the figures soon to appear in *De Humani Corporis Fabrica.*

"The artist is generally believed to have been Jan Stefan Van Kalkar, a pupil of Titian, although this attribution has been questioned. The author of the accompanying text, the anatomist upon whose dissections of the human body these plates were based and the undisputed father of human anatomy, was Andreas Vesalius, born in Brussels, trained in Louvain and Paris, and now, at the age of 28, professor of anatomy in Padua.

"The precious pear wood blocks were delivered to the printer, Johannes Oporinus of Basel, who assumed the responsibility of converting the plates and textual material into the great book, which, in the minds of many historians, embodies the Renaissance of medical science.

"Vesalius himself spent the winter of 1542-43 in and about Basel until the book was published in August 1543. After several editions, the original wooden plates were lost, only to be rediscovered by chance in the 1930's in the vaults of a Munich museum. Although badly warped, they were used to produce yet another series of iconography of Andreas Vesalius. Returned again to the Munich museum, they were finally destroyed during the bombing of the city in World War II.

"According to Saunders and O'Malley in *The Illustrations from the Works of Andreas Vesalius:* 'Almost half a century ago it was pointed out that the background to the series of musclemen, if placed in contiguous sequence, formed a continuous landscape. The region has been identified and the late Harvey Cushing visited the site and left us the following description: "the region around Abano Terme, now a fashionable watering place in the Euganean hills a short distance south by west of Padua—the countryside of Petrarch, as a matter of fact. There the site of the old Roman Thermae shown in ruins . . . the Bacchiglione river with the bridge over it, and the rugged trachytic rocks all can be easily identified." Certain peculiar mannerisms in the drawing of the landscapes suggests that they were the work of Domenico Campagnola, who worked for Titian as a landscape draughtsman at this time. His mannerisms are sufficiently distinctive to differentiate his work from that of this master.

" 'In conclusion, the cumulative evidence points with near certainty to the fact that the illustrations of the *Fabrica* emanated from the *atelier* of Titian. Jan van Kalkar, Domenico Campagnola, and doubtless other artists participated in the work under the supervision of the master, but some of the plates are certainly the work of Vesalius himself.' "

All who go to the Piscataway campus for whatever reason are urged to spend some time with this remarkable collection. A.K.

NHI "Town Meeting"(?)*

The Secretary of the Department of HEW, at the request of President Carter, is said to be developing recommendations for a national health insurance proposal to be submitted to Congress early in 1978. In a typical, democratic, American fashion, Secretary Joseph Califano asked each regional office "to solicit

*A town meeting is "a general meeting of the inhabitants of a town" or "a meeting of the qualified voters of a town for the transaction of public business."

the views and recommendations of their concerned citizens." Thus, in the northeast corridor of this nation so-called "town meetings" on NHI were scheduled in Trenton and Newark. Unfortunately publicity at large was nonexistent.

As a participant in the Trenton gathering, speaking for the Medical Society of New Jersey, your editor can report that this was no "town meeting," but a sham. In fact, by the attitudes and questions of the central government panel members on the podium, one can only believe that the recommendations of Secretary Califano and President Carter are already in press.

It was a dreary, rainy day when the hearing was to be held in Trenton's vast War Memorial Building, a structure large enough for a town meeting. On the door of the WMB, one found a sign: "Town Meeting transferred to State Health and Agriculture Building." Midst a few cuss words and a torrent of rain your editor arrived at and was admitted to the conference room at the Health and Agriculture Building. It held no more than 60 or so chairs, almost all of which were occupied by state, county, or municipal government employees and less than a handful of persons one might recognize as "concerned citizens." It was quite clear from the presentations that this audience was there to support NHI, and to be sure that the law included their own special interest clauses. There was virtually no public notice of the hearings in the press, radio, or television. Invitations apparently went to health agencies, which were abundantly represented, but not to the general public.

Your editor was able to speak, but the lady moderator objected to some comments as being irrelevant. For example, when it was pointed out that British National Health Insurance was the first step which led to the British National Health Service, the moderator admonished the speaker with the notion that "that was a long time ago" and "that (national health service) would not happen here in the United States."

We made the point that the AMA-sponsored national health insurance plan called the Comprehensive Health Care Insurance Act of 1977 (HR 1818 and S 218), which was introduced in Congress January 13, 1977 is a reasonable approach. This pluralistic concept, which would provide comprehensive health benefits as well as protection against the cost of catastrophic illness, is supported by physicians. It will maintain the integrity of the free institutions of private enterprise, freedom of choice, cooperation between employers and employees, private insurance carriers, and government insurance programs which *should be* the American way.

We also made the point that NHI will *not* solve all of America's health problems:

1. It will not change the life style influences, such as smoking, alcohol and drug abuse, obesity, lack of exercise, and so on, which are responsible for a good deal of our morbidity and mortality.

2. It will not correct the problems of poor housing and sanitation, malnutrition, and mental disorders, which lead to suicide, homicide, and other anti-social behaviors.

3. It will not provide *more* doctors, nor will it redistribute physicians to undesirable locations.

NHI will not be cheap—it will be expensive. The AMA plan is a balanced attempt to provide for the needs of all our citizens in a way which will permit the input of public and private funds into the health care system, while maintaining the freedom which is so essential in this nation.

All physicians should become familiar with the proposals of the AMA-sponsored approach to health care and actively support that program.

A.K.

Cover Photo

The cover photograph and statement by former Dean Stetten were provided to *The Journal* by Marsha E. Jessup, Medical Illustrator and Director, Media Resources Department, Rutgers Medical School, CMDNJ.

THE LOWER G.I. TRACT: ORGANICALLY SOUND



Celiac angiography is one of a number of highly specialized diagnostic techniques sometimes necessary to rule out organic causes of abdominal pain.

...BUT OVERSENSITIVE TO EMOTIONAL STRESS



IN IRRITABLE BOWEL SYNDROME* LIBRAX PROVIDES DISTINCTIVE ADVANTAGES

- the specific antianxiety action of Librium®(chlordiazepoxide HCl)
- the potent antispasmodic action of Quarzan®(clidinium Br)

Adjunctive/Dual-Action

LIBRAX®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

A clear treatment advantage for patients with irritable bowel syndrome

ROCHE

*This drug has been evaluated as possibly effective for this indication.
Please see following page for brief summary of prescribing information.

A CLEAR TREATMENT ADVANTAGE FOR PATIENTS WITH IRRITABLE BOWEL SYNDROME*



Adjunctive/Dual-Action LIBRAX®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

ONLY LIBRAX PROVIDES THE SPECIFIC ANTIANXIETY ACTION OF LIBRIUM® (chlordiazepoxide HCl) PLUS THE POTENT ANTISPASMODIC ACTION OF QUARZAN® (clidinium Br)

Please consult complete prescribing information, a summary of which follows:

* **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
Final classification of the less-than-effective indications requires further investigation.

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium® (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacologic effects of agents, particularly potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are avoidable in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of the mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

Dosage: Individualize for maximum beneficial effects. Usual maintenance dose is 1 or 2 capsules, 3 or 4 times a day, before meals and at bedtime. Geriatric patients—see Precautions.

How Supplied: Librax is available in green capsules, each containing 5 mg chlordiazepoxide hydrochloride (Librium®) and 2.5 mg clidinium bromide (Quarzan®)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50, available singly and in trays of 10.

ROCHE

Roche Products Inc.
Manati, Puerto Rico 00701

ORIGINAL ARTICLES

The components and interactions of the hypothalamic-pituitary ovarian axis have been described in depth in order to present a logical approach to the diagnosis and treatment of anovulation. In the majority of cases, spontaneous ovulation will occur and no underlying pathology will be found. The use of progesterone to disrupt the effect of unopposed estrogen on the endometrium is advised and the use of oral contraceptives to insure monthly bleeding should be avoided. In the menopausal female, curettage is mandatory to rule out endometrial hyperplasia or atypia. The predominant method to induce ovulation at present is medical; should this fail, ovarian wedge resection may be necessary. Failure of ovulation induction has been reported and described as the "resistant ovary syndrome. . . ."

Anovulation: Etiology, Investigation and Treatment

Philip Florio, M.D.,
Caterina A. Gregori, M.D.,
James L. Breen, M.D., Livingston*

In 1830, W. P. DeWees, a noted obstetrician and gynecologist at the Pennsylvania Hospital wrote that "menstruation was a periodic secretion of fluid colored red to alert the female for motherhood should it fail to appear."[1] Since that time numerous advances have been made in determining the hormonal patterns and interactions that occur during the normal menstrual cycle. With the advent of radioimmunoassay techniques, saturation analysis, radioactive tracers, and precise measurements of determining FSH, LH, estradiol, and progesterone during the menstrual cycle, we now have detailed information about their secretion and delicate interactions.

By describing in depth, the current thought on hormone interaction in the normal menstrual cycle and examining in detail the components of the hypothalamic-pituitary-ovarian axis, an attempt will be made to present a logical approach to the investigation and treatment of anovulatory menstrual bleeding.

The Normal Menstrual Cycle

The normal menstrual cycle consists of three definite phases: initial follicle growth and maturation phase, ovulation, and corpus luteum phase. Each will be discussed.

Initial Follicle Growth and Maturation— Spurred by a decline in estrogen and progesterone from a waning corpus luteum of a previous cycle, rising levels of FSH stimulate a group of follicles in the ovary to grow. Initially a group of follicles will respond to the stimulus but the follicle or follicles that are destined to ovulate in that cycle are selected, perhaps, by timing and morphology. According to Vande Wiele[2] the first follicle that is able to respond to FSH attains an advantage as compared to its fellow follicles of an increasing sensitivity to FSH and LH and an increasing ability to secrete estrogens, thereby insuring itself a lead over all other follicles in growth and ovulation. Tonic LH, which also is present at this time in smaller amounts, is necessary for adequate follicle maturation and steroidogenesis. In the ovary FSH promotes the initial proliferation of the granulosa cells and the transformation of the surrounding stroma into a layer of theca cells. The theca interna cells have a good venous drainage, which facilitates an immediate, rapid release of estrogen into the general circulation.[3]

Because of its negative feedback effect on the hypothalamic pituitary axis, estradiol starts to rise on the fifth day of the cycle and peaks by the fourteenth day of the cycle, causing a concomitant decline in FSH.[4] Meanwhile, circulating estrogen is also stimulating the endometrium to proliferate and a rapid and

*Dr. Florio is a third-year resident, Dr. Gregori is Assistant Director, and Dr. Breen is Director, Department of Obstetrics and Gynecology, Saint Barnabas Medical Center, Livingston, New Jersey; Dr. Gregori also is Associate Director, Division of Gynecologic Oncology, Saint Barnabas, and Dr. Breen is Clinical Professor of Obstetrics and Gynecology, Jefferson Medical College, Philadelphia.

sustained growth occurs increasing the thickness of the endometrium to five mm. or more at the time prior to ovulation.[5] Histologically, the endometrium reveals increased mitoses, glandular proliferation and a dense stroma at this time.

This increasing level of estrogen reaches a critical point and is considered to be a stimulus via a positive feedback mechanism on the hypothalamic pituitary axis, causing an explosive transient discharge of LH in the midcycle of the menstrual cycle. Burger[6] provided indirect evidence for this in his studies of the relationship of urinary estrogen to plasma LH in 12 subjects in whom the peak of estrogen excretion preceded or coincided with the plasma LH peak. Swerdloff and Odell[7] demonstrated that synthetic estrogen produced repeated bursts of LH but not of FSH. Vande Wiele[8] in studying a group of anovulatory women noted significant elevation in LH levels after the intravenous administration of estrogen.

During the rapid rise in the secretion of LH, the final steps in the maturation and rupture of the graafian follicle and expulsion of the oocyte occur. Ovulation occurs only if the follicle has attained a stage of maturity which allows it to respond to the LH stimulus. Since the timing of the LH surge is controlled by the level of estrogen which is a function of follicle development, the LH surge and follicular maturity are coupled in time. The elevated LH levels persist for 24 hours and decrease during the early post-ovulatory period to values below the pre-ovulatory concentration. Within hours after the LH surge, plasma estrogen drops precipitously and progesterone increases slowly.[9] Also present at this time is a modest rise in FSH[10] which may be coincidently related to the rise in LH or, perhaps, a response to the rising level of progesterone.

Ovulation—Approximately 24 to 36 hours following the abrupt rise in LH secretion, ovulation occurs. The mechanism by which the ovum is expulsed from the ovary is speculative at present. Espey[11], in studying rabbit ovaries during ovulation, failed to detect any sudden rise in intrafollicular pressures during ovulation. Wallach[12] feels that ovarian smooth muscle and autonomic nerves, combined with ovarian prostaglandin F_2, which may be the mediator by which LH acts on the ovary, are the factors in the ovulatory process. Another hypothesis is that LH, acting on the follicular walls via the cyclic AMP system, causes progesterone secretion which in turn activates an enzyme that is capable of altering the physical properties of the follicle wall. The follicle swells slowly with subsequent follicular wall rupture allowing the ovum to ooze out.[13]

Corpus Luteum Phase—Following the rupture of the follicle and expulsion of the ovum, the granulosa cells enlarge and capillaries begin to penetrate into this layer. Peak vascularization is reached eight or nine days after ovulation, accompanied with peak levels of progesterone and estradiol in the plasma. Because of their negative feedback effect on the hypothalamic pituitary axis, these peak levels of progesterone and estradiol cause a decline in the levels of LH and FSH. Approximately 10 to 12 days after ovulation, if pregnancy does not occur, the corpus luteum begins to regress as shown by decreasing progesterone levels.[14] With the decline in ovarian steroids, FSH slowly rises and a new menstrual cycle begins.

Regulation of the Menstrual Cycle

The regulation of the normal menstrual cycle, which appears to be an autonomous process in time during the reproductive era of the female (follicle maturation—ovulation—corpus luteum—menses—follicle maturation. . .) is a complex interrelationship between the cerebral cortex, hypothalamus, pituitary, and ovary. It is the hypothalamus which plays an integrating role between the cerebral cortex and the pituitary gonadal axis. By understanding this relationship one can appreciate how stress, fear, grief, anxiety, despair, diet, activity, environment, and diverse systemic diseases may affect the menstrual cycle and result in anovulation and menstrual suppression.

Hypothalamus—The role of the hypothalamus in the regulation of the menstrual cycle is to analyze humoral interoceptive stimuli which

arise within the body and exteroceptive stimuli which originate in the external environment to integrate this information and to transmit it to the pituitary gland via releasing factors which control the secretion of the tropic hormones.[15] Situated in the lowermost portion of the diencephalon, directly above the pituitary gland, the hypothalamus is recognized as a small band of gray tissue. It is felt that gonadotropic secretion is regulated by two distinct areas in the hypothalamus. A "steady state" or "tonic" area is located in a well-defined region of the median basal hypothalamus which contains the ventromedial and arcuate nucleus. This region is responsible for low level gonadotropic secretion release.[16] The "cyclic center," which is located in the pre-optic supraoptic region of the hypothalamus, is responsible for the LH surge and therefore control of ovulation.[17]

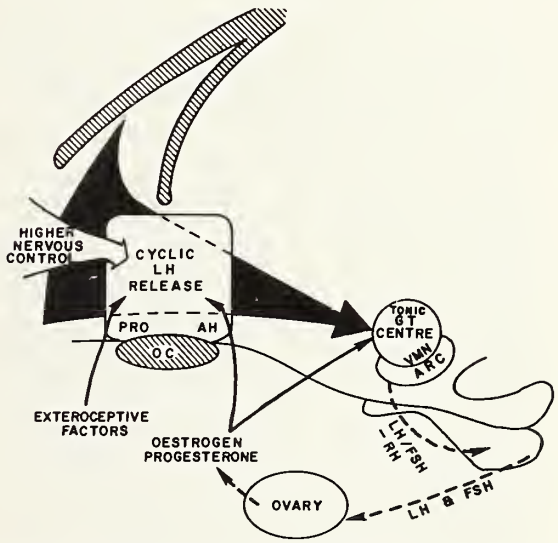


Figure 2. Two hypothalamic centres of gonadotrophin control. GT = gonadotrophin release centre; VMN = ventromedial nucleus; ARC = arcuate nucleus; PRO AH = pre-optic anterior hypothalamic nucleus; OC = optic chiasma.

From Newton J and Collins W: Investigation of hypothalamic pituitary function. *Clinics in Obstetrics and Gynecology* 1:272, 1974. Reprinted with permission of W. B. Saunders Company, Philadelphia.

In the normal female, as compared to the male, the hypothalamus has a cyclic role in reproductive function. By the presence of androgens during intrauterine life or in the immediate neonatal period, this cycling area is permanently blocked in the male.[18] Greenblatt[19] showed that polycystic ovaries, secondary to anovulation can be produced in rats by the injection of androgen; the mechanism postulated was a prevention of cyclic LH release. Prior to puberty the hypothalamic-pituitary-ovarian axis is functioning but, because of an extreme sensitivity to gonadal steroids, hypothalamic secretion is suppressed.[20] Sexual maturation is thought to be associated with a decrease in the sensitivity of the hypothalamus to this negative feedback system.

Releasing Factors—In 1963, Schally and Guilleman were able to demonstrate that the release of FSH and LH was under neuroendocrine control from the hypothalamus via releasing factors.[21] The gonadotropin-releasing factor (GnRF), originally obtained from extracts from pig hypothalami, was found to have both LH and FSH releasing properties in experiments in animals and humans.[22,23] Synthesized finally in 1971 by Matsuo and Schally, it is a decapeptide with the following sequence, (puro) glu-his-trp-ser-try-gly-leu-arg-pro-gly-NH_2.[24] Regulation of the secretion of gonadotropin-releasing factor and prolactin-inhibiting factor, the only inhibiting releasing factor in the hypothalamus, is by neurotransmitters or "biogenic amines" notably dopamine, nor-epinephrine, and epinephrine.[25] Thus, drugs which influence the levels of monoamines in the brain may have clinical significance. For example, L-dopa which increases dopamine levels may be used to stimulate GnRF release or used in the treatment of galactorrhea by stimulating secretion of PIF.[a][26]

Pituitary—Found in the base of the skull in the sella turcica, the pituitary gland is composed of an anterior portion derived from Rathke's pouch and secreting tropic hormones, and a posterior lobe which is a direct downgrowth of the hypothalamus. There is no neural connection between the hypothalamus and the anterior pituitary gland. Rather, an intimate association is present which allows a system of blood vascular channels in the pituitary stalk. Described as a portal system, capillary loops arising from branches of the internal carotid

[a] Prolactin inhibiting factor

artery, supply blood to the median eminence; those drain into venous channels in the stalk of the pituitary gland which then again break up into capillaries which supply the main substances of the gland. These capillaries eventually drain into veins leading to the cavernous sinus and then to the systemic circulation.[27]

Gonadotropins

Synthesized in the basophil cells of the anterior pituitary it now seems that FSH and LH are found in the same cell.[28] Structurally glycoproteins with molecular weight of approximately 30,000, their action is mediated via receptors on the cell membranes. After combination with the receptor, adenyl cyclase catalyzes the conversion of ATP to cyclic AMP via prostaglandin.[29] It is this cyclic AMP which induces the synthesis of the protein of that particular cell.

Ovary—The principal components of the ovary are a coelomic epithelial covering, stroma, blood vessels and lymphatics with follicles in varying stages of development or degeneration.

The most immature follicle form is the primordial follicle which consists of a primary oocyte in attenuated prophase of the first meiotic division separated from the surrounding stroma by a basement membrane consisting of flat, spindle-shaped cells. When these spindle-shaped cells become cuboidal, the follicle is called a primary follicle. It is this cuboidal cell layer which will give rise to the granulosa cell layer and the zona pellucida, a mucoid band which surrounds the oocyte.[30] At two months of gestation, there are approximately 600,000 oogonia present.[31] By five months gestation, this number increases to 6 to 7 million but is reduced to 1 million at time of birth. By age seven because of continuing follicular atresia, the female is left with 300,000 ova.

Feedback System—The mechanism controlling the menstrual cycle is a complex, coordinated interrelationship between the individual organs and their secretions; the latter include neurotransmitters, releasing factors, gonadotropins, and hormones via feedback systems, which are both stimulatory (positive) and inhibitory (negative). Speroff[32] describes three distinct feedback loops: (1) a long feedback loop where estrogen and progesterone affect hypothalamic and pituitary secretion, (2) a short feedback loop which is a negative feedback of gonadotropins on pituitary secretion via hypothalamic releasing factors[5], and (3) an ultra-short feedback loop where there is inhibition by the releasing factors on their own secretion. These delicate and complex interrelations must be studied and understood in order to formulate a logical approach in the diagnosis and management of menstrual irregularities.

Etiology and Pathogenesis

Anovulation is failure of ovulation. According to Beacham[33], anovulation is an expression of ovarian dysfunction which results in irregular, excessive, scant or prolonged bleeding of endometrial origin which occurs in the absence of gross anatomic lesions of the uterus, neoplasma, pregnancy, or blood dyscrasias. This disorder is usually temporary, prone to spontaneous correction and unaccompanied by a basic endocrine or metabolic disturbance.

Goldfarb[34] cited the following etiologic factors causing anovulation in a series of his patients (in order of greatest frequence): change in weight (20 percent); environmental change; organic cause; parental disagreement; loss of consort; post-pill; getting married; psychiatric; unknown; postpartum or abortal; and physical activity. Because we are confronted with a variety of totally unrelated causes which affect the menstrual cycle, discussion will be confined to a few of the etiologic factors and attention will be directed toward the pathogenesis of anovulatory bleeding in various age groups.

Obesity causes anovulation because the increase in adipose tissue provides an increased compartment for peripheral conversion of androstenedione to estrone.[35,36] This increased estrone will cause an abnormal feedback stimulus to the hypothalamus. Stress causes anovulation by a direct effect via the hypothalamus and indirectly by an increase in adrenal androstenedione with subsequent peripheral conversion to estrone, again altering the feedback mechanism.[37]

The effects of psychiatric illness and stress on the menstrual cycle are cited in the following examples. Wallach[38] studied 219 females consecutively admitted to a state mental hospital by endometrial biopsy and urinary pregnanediol determination; he found that 44.7 percent and 35.9 percent had results inconsistent with ovulation.

A "psychogenic" delay in ovulation was hypothesized by Peyser[39] who attempted to define the shape of the mid-cycle LH surge; he hospitalized two normal healthy volunteers with normal preceding cycles for a period of 7 to 10 days around the expected time of ovulation and obtained blood samples every four hours for evaluation of LH levels. In both subjects he found the expected preovulatory surge of LH was delayed considerably and occurred in both subjects 48 hours after hospital discharge.

Pathogenesis

Postmenarcheal female—In the early postmenarcheal years the cyclic ability of the hypothalamus which is necessary for ovulation is not fully developed. Because of the constant presence of FSH there are a number of active follicles present in the ovary at any particular time which may be in various stages of development. Each follicle contributes estrogen to the general circulation and this is the most frequent endocrine disturbance. This constant, steady state of unopposed estrogen stimulation ("constant estrus") is caused by absence of cyclic LH secretion secondary to a derangement in the feedback mechanism; therefore there is uterine bleeding which is totally irregular from an endometrium that is stimulated to grow by estrogen alone.

Because of this "discordant pituitary stimulation," the estrogenic stimulation may be prolonged and persistent resulting in a proliferative endometrium which at times may be so adenomatous that it may appear to be a carcinoma *in situ*![40] Due to the absence of progesterone and regular monthly shedding, the endometrium attains an abnormal height without structural support. Finally the thickness of the endometrium reaches a height which can no longer be sustained by its own blood supply and bleeding ensues.

Female of Reproductive Age—The predominant gonadotropin at this time is LH. Because of chronic long-term oligomenorrhea, there is an accumulation of follicles in various stages of development and therefore a constant production of estrogen. Clinically these patients present with either oligomenorrhea or heavy irregular bleeding, hirsutism, and occasionally with obesity. Classically, both ovaries are enlarged to twice normal size. Described originally in the 1930's by Stein and Levinthal, it is now felt that this syndrome relates to a group of disorders which involve complex inter-relationship between the hypothalamus, pituitary, adrenal, and ovary resulting in oligoamenorrhea and increased androgen production. The increased ovarian androgen production is due to the increased mass of active follicles engaged in steroidogenesis.

Because of the negative feedback mechanism, FSH is decreased while LH is increased by virtue of the positive feedback mechanism; this causes production of estrogen, thereby perpetuating a vicious cycle.[42] The response to bilateral wedge resection of polycystic ovaries is dramatic with 80 percent ovulation rate and a 65 to 90 percent conception rate.[43] The surgery produces a traumatic effect on steroid synthesis, by interrupting the positive stimulatory feedback effect of estrogen on the hypothalamus. The continuous release of LH is interrupted so it can then accumulate in the basophil cells in the pituitary. Ovulation will be able to occur because the pituitary is now capable of cyclically secreting a quantity of LH required for an LH "surge."[44]

Perimenopausal Females—Askel and Jones[45], in studying the FSH-LH patterns in a group of perimenopausal females with dysfunctional uterine bleeding, were able to show that ovarian failure is the primary etiology of the anovulatory bleeding at this time. The first indication of failing ovarian function is a marked elevation of FSH, which occurs prior to the elevation in LH. Patients with elevated FSH levels which were maintained and followed by eleva-

tion of LH levels were expected to complete the menopause and have no further problems with dysfunctional uterine bleeding. Those patients whose elevated FSH levels returned to normal were considered to be perimenopausal and had additional episodes of irregular bleeding. It was felt that this "see-saw" pattern of FSH reflected a readjustment of the feedback mechanism in relation to the number and size of the residual follicles. It is this inappropriate FSH-LH relationship, with irregular estrogen production and erratic stimulation of the endometrium, which explains the periodic episodes of dysfunctional uterine bleeding at this time.

Investigation

The usual history and physical examination, including a pelvic examination, will not reveal evidence of organic pelvic pathology or endocrine or metabolic disturbances. Withdrawal bleeding after a dose of progesterone indicates that gonadotropins are interacting with follicles, secreting estrogen which is stimulating the endometrium to proliferate.

In the adolescent age group, there is an increased frequency of blood dyscrasias, therefore a study of the coagulation mechanism is required. Thyroid studies are needed to rule out hypothyroidism. In the sexually active female of reproductive age, one also must consider an incomplete abortion; therefore, curettage may be required. Because of the increased incidence of uterine carcinoma in the menopausal years, endometrial curettage is indicated.

Evaluation of the Reproductive Axis

History

Physical Examination

Blood tests:
- Hematologic: CBC, PTT, PT, Platelet count
- Electrolytes, BUN, 2 hr. P.P., glucose
- Liver chemistries

Urine analysis and culture

Chest x-ray

Tests of Ovulation:
- BBT
- Vaginal cytology (KPI)
- Cervical mucus
- Endometrial biopsy
- Serum progesterone (greater than 5ng/ml)

Endocrine evaluation:

Hypothalamus:	1. Metapyrone test 2. Lysine vasopressin test 3. Insulin hypoglycemia
Pituitary:	1. Clomiphene reserve test 2. LHRH stimulation test 3. Serum LH and FSH 4. X-ray of sella turcica 5. Visual fields
Thyroid:	1. T_3 and T_4 2. TSH
Adrenal:	1. 24 hour urinary 17-hydroxy and 17 ketosteroids 2. Diurnal serum cortisol 3. Dexamethasone suppression test
Ovary:	1. Serum estradiol and progesterone

Miscellaneous:
- Karyotype
- Buccal smear
- Laparoscopy
- Ovarian biopsy

Treatment

Treatment of anovulation and anovulatory bleeding must be individualized. Induction of ovulation is the goal of therapy in the female desirous of pregnancy, but this is not ideal for the young teenager or the perimenopausal female with prolonged, erratic, or excessive bleeding patterns. Historically the treatment of dysfunctional uterine bleeding included oral administration of toluidine blue with its inhibitory effect on fibrinolytic activity of menstrual blood, the use of ergot and oxytocin, and the use of ionizing rays (which has been abandoned because of the increased incidence of leukemia and cancer of the irradiated tissues).[46] In this discussion, treatment of anovulation and its irregular bleeding will be considered under the following headings:

(1) Treatment of the adolescent and young female
(2) Treatment of the perimenopausal female
(3) Induction of ovulation

Treatment of the teenager or the young adult – The goal of therapy in this group of patients is the arrest of a particular bleeding episode,

interruption of the steady state effect of estrogen on the endometrium and its sequelae, and restoration of menstrual cyclicity.

Bleeding usually can be stopped and regulated by hormonal therapy. Because the primary defect is anovulation with concomitant lack of progesterone, the use of progesterone with small amounts of estrogen to insure adequate priming of the endometrium is the mainstay of treatment. Initially large doses are used, which then are reduced when the bleeding subsides. Small doses are continued for the next three weeks and stopped; withdrawal bleeding then follows. When excessive vaginal bleeding is present and a prompt cessation of bleeding is desired, 25 mg. of conjugated estrogens (Premarin®) are administered intravenously every four hours until bleeding subsides. The mechanism of action may include changes in coagulation and a direct cohesive effect on the capillaries in the endometrium.[47]

Following withdrawal bleeding, it is essential to administer a progestational agent at bimonthly intervals (Provera®, 10 mg twice daily for five days) to cause withdrawal bleeding and prevent the unopposed estrogen on the endometrium causing hyperplasia and atypia. By causing withdrawal bleeding every two months the patient will be able to detect the onset of regular bleeding secondary to ovulation. Depending on oral contraceptives to insure the patient regular monthly bleeding is ill advised because there is persistent suppression of the hypothalamic-pituitary axis in a patient whose hypothalamus has not yet demonstrated its cyclic ability.[48] Curettage should be avoided in this age group because it has little or no beneficial effect on irregular bleeding. Also, histologic examination of the endometrium is not essential for management. Furthermore, the stress of hospitalization and surgery may further delay maturation of the hypothalamus. Since ovulation may occur spontaneously at any time, the use of a mechanical form of contraception should be advised in the sexually active female, at this time.

Prognosis—In the majority of cases of teenagers with anovulatory bleeding, it is said that ovulation eventually will occur and menses will become regular. Southam and Richert[49] followed 291 adolescents with dysfunctional uterine bleeding from 1941 to 1964. Fifty percent became normal after four years, 43 had transfusions, 177 had curettages and 85 had laparotomies and 60 of this group became normal after bilateral ovarian wedge resection or ovarian cystectomies. Nine hysterectomies were performed; four in the 20-23 age group had continued bleeding and four between 23 and 33 years of age had endometrial carcinoma. One hundred and ten patients married and over half of these remained infertile.

Fraser and Baird[50], in Scotland, studied endometrial histology in all patients under the age of 20 who required curettage for menstrual bleeding from 1955 to 1964. They found 17 patients with cystic glandular hyperplasia (4 percent) and their follow up revealed persistent menstrual abnormalities, repeated curettages, and primary infertility. Jackson and Dockerty[51] studied 43 patients at the Mayo Clinic with "Stein Levanthal Syndrome" and found that 16 of the 43 patients had an associated endometrial carcinoma. Aksel *et al.*[52], in studying anovulatory women and induction of ovulation, found two 24 year old patients with adenomatous hyperplasia of the endometrium. Despite induction of ovulation, the endometrial pathology did not change and one patient went on to develop endometrial carcinoma.

It appears obvious that these young females require continuous follow-up. Hopefully the use of progestational agents, by opposing the effect of estrogen on the endometrium, will decrease the incidence of early endometrial carcinoma. For those who desire to become pregnant, induction of ovulation or ovarian wedge resection may be required.

Perimenopausal Female—In this age group the primary treatment is early curretage to rule out endometrial carcinoma or an atypical hyperplastic pattern, and to stop bleeding. If no local pathology is found, regular endometrial maturation and flow may be obtained with the use of progesterone for five days during each cycle.[53]

Induction of Ovulation—At present, the primary choice of therapy for induction of ovulation is medical rather than surgical. The anovulatory infertile female may present with either irregular menses, amenorrhea, or completely regular cycles. Prior to instituting therapy, careful studies should be performed to rule out any etiologic factors (male infertility, endometriosis, tubal occlusion, and so on) and to rule out major systemic organic disease (diabetes mellitus, thyroid disease, neoplasm, renal disease, and so on) which may affect the course of a subsequent pregnancy. If an underlying etiologic factor is discovered, specific treatment is given first. This may include psychotherapy for emotional factors, improvement of nutrition, weight loss in the obese, thyroid control if needed, and corticosteroids for adrenal suppression. In the vast majority of cases, however, no specific etiologic factor is found.

Available agents for the induction of ovulation act on the following mechanisms: (1) those that alter the hypothalamic ovarian feedback mechanism, i.e., estrogen and clomiphene and (2) those agents that supply deficient hypothalamic-pituitary axis factors, i.e., human menopausal gonadotropin; human chorionic gonadotropin and, recently introduced, synthetic luteinizing hormone releasing hormone (LHRH).

Clomiphene Citrate—Greenblatt[54] introduced clomiphene citrate in 1961 for inducing ovulation in anovulatory females. This drug is an orally active nonsteroidal agent which is chemically structured similar to diethylstibestrol and possesses estrogenic and anti-estrogenic properties. The initial work with clomiphene was for use as a contraceptive agent. The antiestrogenic effect on cervical mucus, which becomes scanty after six days of therapy, may explain the low pregnancy rate after ovulation.[55]

Because of its ability to saturate the estrogen receptors on the hypothalamus, clomiphene prevents the hypothalamus from perceiving the total endogenous serum estrogen level. Sensing a diminished estrogen level and enforcing a negative feedback mechanism, the hypothalamus via LHRH stimulates the pituitary to release FSH and LH.[56, 57, 58]

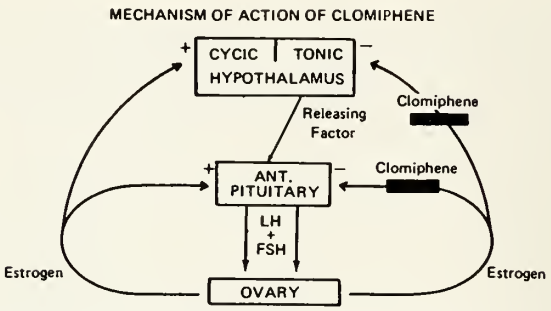


FIG 2. Mechanism of action of clomiphene citrate. Estrogen exerts a negative feedback effect on hypothalamic releasing factor. Clomiphene citrate, a weak estrogen, replaces estrogen on receptor site, and releasing factor discharge resumes.

From Newton J and Collins W: Investigation of hypothalamic pituitary function. *Clinics in Obstetrics and Gynecology* 1:205, 1974. Reprinted with permission of W. B. Saunders Company, Philadelphia.

Clinical Use—Clomiphene therapy generally is instituted on the fifth day of a cycle following either induced or spontaneous bleeding and an adequate course of therapy is five days. Beginning with 50 mg daily, the dose is increased by 50 mg increments up to 200 mg per day if ovulation is not achieved. Anticipating ovulation approximately seven days after the last day of therapy, the infertile couple is advised to have intercourse every other day for one week, starting five days after finishing the last dose of clomiphene.

The response to clomiphene is generally monitored by basal body temperature. A normal ovulatory response is characterized by a rise in temperature three to ten days after the last dose preceded by a dip in the temperature.

If there is a failure to ovulate with a daily 200 mg clomiphene dose the chances of increasing the possibility of ovulation may be obtained with the use of HCG[b] in order to improve the "LH surge." A single intramuscular dose of 10,000 international units of HCG[b] is given on the seventh to tenth day after clomiphene when follicular maturation is at its peak. To determine the ideal time for administering HCG[b], monitoring of estrogen is advised. Because of

[b]Human chorionic gonadotropin

the antiestrogenic effect of clomiphene, examination of vaginal cytology or cervical mucus is not as accurate as a serum estradiol level. Despite its established ability to induce ovulation, there is a wide variability in the rates of induction of ovulation (45.7 to 94 percent) and conception (14 to 65.5 percent).[59,60,61]

Complications—According to Speroff *et al.*[62] the side effects are dose related and include vasomotor flushes, 10 percent; abdominal distention; bloating pain or soreness, 5.5 percent; breast discomfort, 2 percent; nausea and vomiting, 2.2 percent; visual symptoms, 1.5 percent; headaches, 1.3 percent and loss of hair, 0.3 percent.

The most serious hazard of clomiphene therapy is the hyperstimulation syndrome which presents as ovarian enlargement with accompanying abdominal pain a few days after cessation of therapy. Treatment of choice here is conservative.

Estrogen—Prior to the advent of clomiphene, estrogen was the sole therapy for inducing ovulation.[63] The probable mechanism was demonstrated by Vande Wiele[64] in 1970, when he noted an increase in blood levels of LH following the administration of conjugated estrogen. This correlation was used in formulating the premise that the midcycle peak of estradiol results in the midcycle surge of LH. With the availability of clomiphene, estrogen now is used rarely to induce ovulation.

Gonadotropins—In 1958, Genzell *et al.*[65] described the first successful induction of ovulation and pregnancy in the human utilizing FSH derived from autopsy specimens of pituitary glands. Understandably, this source of FSH is in short supply. Utilizing the knowledge that FSH and LH are freely excreted in urine in an active form and in elevated levels after the menopause, Vande Wiele, in 1965, was able to induce ovulation using gonadotropins derived from menopausal urine (Human menopausal gonadotropin: HMG).[66] HMG commercially available as Pergonal® contains 75 units of FSH and 75 units LH. It is to be noted that HMG simply stimulates follicular development, and an ovulatory surge of LH is required which may be provided by human chorionic gonadotropin (HCG) in a single intramuscular dose, readily available from human pregnancy urine and placental tissue.

HMG-HCG Therapy—The basic approach to this form of therapy is the stimulation and maturation of ovarian follicles by the administration of HMG for seven to fourteen days. Follicular maturation is assessed by the amount of estrogen produced. Estrogen production is monitored clinically by the cervical mucus and measurements of total urinary estrogens. When the cervical mucus demonstrates increased estrogen effect and the urinary estrogen level is between 100 to 200 ug/24 hour period, then the patient is ready to receive the ovulatory stimulus, HCG, 10,000 units intramuscularly. Intercourse is then advised on the day of HCG administration and for two days thereafter. Ovulation will occur in 90 percent of patients with competent ovaries and a pregnancy rate of 50 to 70 percent will be achieved with HMG-HCG therapy.[67]

Complications include the hyperstimulation syndrome and multiple gestations. The hyperstimulation syndrome may be avoided by determining urinary estrogen levels and withholding the HCG dose if the urinary estrogen level exceeds 200 ug/24 hrs.[68] However, there is no means to control the number of ova released from the ovary at the time of ovulation; multiple gestations occur at the rate of 20 to 30 percent.[69]

Synthetic LHRH—The first successful attempt to induce ovulation with LHRH was by Kastin *et al.*[70] in 1971, who were able to induce ovulation in a woman pretreated with human menopausal gonadotropin by infusion of porcine LHRH for 24 hours. Zarate *et al.*[71], in 1972, treated thirteen patients with suspected hypothalamic anovulation with synthetic luteinizing hormone releasing hormone in order to induce ovulation and pregnancy. Two of three patients ovulated after LHRH was administered by intravenous infusion for eight hours. Four of ten patients ovulated after daily intramuscular injection of LHRH for ten days. Two

patients in this group had subsequent pregnancies. This study showed that LHRH has significant potential to induce ovulation in those cases of anovulatory infertility.

Despite enthusiasm by many that LHRH would readily induce ovulation in anovulatory females, one should note that LHRH promotes a greater release of LH than FSH and if administered as a single dose, it will induce a midcycle ovulatory LH surge and will cause ovulation only if a mature follicle has developed.[72,73,74] To be used effectively, it must be administered for a prolonged time to induce follicular development, or administered simultaneously with an agent that will stimulate follicle development and maturation. Utilizing these principles, Keller[75], in 1973, combined LHRH with clomiphene in three amenorrheic females and was able successfully to induce ovulation and subsequent pregnancies.

Resistant Ovary Syndrome

(Gonadotropin Resistant Ovaries, Primary Ovarian Failure, Savage Syndrome, Follicular Dysgenesis, Primitive Ovarian Dysplasia, Premature Ovarian Failure, Premature Menopause.)

Despite the therapeutic armamentarium to induce ovulation, there is a resistant ovary syndrome characterized by hypersecretion of gonadotropins as measured by radio-immunoassays of FSH and LH, presence of normal ovarian tissue by biopsy, and hyporeceptivity of these ovaries to exogenous stimulation by gonadotropins. Ovulation has occurred in several of these patients, but only after massive doses of HMG (18 to 42 ampules HMG).[76,77] Originally described in patients with secondary amenorrhea,[78] Dewhurst *et al.*[79] reports a patient with this syndrome who began to menstruate after ovarian wedge resection. The etiology of this syndrome at present is unknown.

Reference

1. Rankin JS: Hormonal patterns and interactions in the normal menstrual cycle. *Clinics in OB-Gyn* 12:741-754, 1961.

2. Vande Wiele RL, Bogumil J, Dyrenforth I, Ferin M, Jewelewicz R, Warren M, Rizkallah T, and Mikhail G: Mechanism regulating the menstrual cycle in women. *Recent Prog Hormone Research* 26:63, 1970.

3. Lenton E and Cooke ID: Other disorders of ovulation. *Clinics in OB-Gyn* 1:313-344, 1974.

4. Koremman SG: Radioligand binding assay system for estradiol measurement in human plasma. *J Clin Endocrinol* 29:879, 1969.

5. Israel SL: *Diagnosis and Treatment of Menstrual Disorders and Sterility.* New York, Harper and Row, 1967.

6. Burger HG, Catt KJ, and Brown JB: Relationship between plasma luteinizing hormone and urinary estrogen excretion during the menstrual cycle. *J Clin Endocrinol* 28:1508, 1968.

7. Swerdloff RS and Odell WM: Serum luteinizing and follicle stimulating hormone levels during sequential and non-sequential contraceptive treatment of eugonadal women. *J Clin Endocrinol* 29:157, 1969.

8. Vande Wiele RL, Bogumil J, Dyrenforth I, Ferin J, Jewelewicz R, Warren M, Rizkallah T, and Mikhail G: Mechanism regulating the menstrual cycle in women. *Recent Prog Hormone Research* 26:63, 1970.

9. Speroff L and Vande Wiele RL: Regulation of the human menstrual cycle. *Am J Obstet Gynecol* 109:234, 1971.

10. Ross GT, Cargille CM, Lipsett MB, Rayfud PL, Marshall JR, Strott CA, and Rodbard D: Reproductive endocrinology. *Recent Prog Hormone Res* 26:1, 1970.

11. Epsey LL and Lipner H: Measurements of intrafollicular pressures in rabbit ovary. *Am J Physiol* 205:1067, 1972.

12. Wallach EE: *Ovarian Musculature and Ovulation. Clinician Male and Female: An Endocrine Update.* San Juan, Searle and Co, 1974.

13. Delforge JP, Thomas K, Roux R, Carneiro de Sequeria J: Fine relationships between granulosa cell growth and luteinization, and plasma luteinizing hormone discharge in human. A morphometric analysis. *Fertil Steril* 23:1, 1972.

14. Speroff L, Glass RH, and Kase NG: *Clinical Gynecologic Endocrinology and Infertility.* Baltimore, Williams and Wilkins, 1973, p. 35.

15. Penza JF and Charles D: Role of the hypothalamus in menstrual disorders. *Clinics in OB-Gyn* 12:786, 1969.

16. Flerko B: Central nervous system secretion and release of luteinizing hormone secretion and follicle stimulating hormone. In A. V. Nalbandov's: *Advances in Neuroendocrinology.* Chicago, University of Illinois Press, 1961, p. 211.

17. Barraclough DA, Yrarrazand S and Hatton R: A possible hypothalamic site of action of progesterone in the facilitation of ovulation in the rat. *Endocrinol* 75:838, 1964.

18. Harris GW: Sex hormones, brain development and brain function. *Endocrinol* 5:627, 1964.

19. Roy S, Mahesh V, and Greenblatt RB: Effect of dehydroepiandrosterone and Δ^4 androstenedione on reproductive organs of female rats: Production of cystic changes in ovary. *Nature.* 196:42, 1962.

20. Kuhn HE, Grumbach MM, and Kaplan SL: Changing sensitivity of the pupertal gonadal hypothalamic feedback mechanism in man. *Science.* 166:1012, 1969.

21. Guilleman R and Schally AV: Recent advances in the chemistry of neuroendocrine mediators originating in the central nervous system. In A. V. Nalbandov's: *Advances in Neuroendocrinology.* Chicago, University of Illinois Press, 1961, pp. 314-344.

22. Schally AV, Amina A, Baba Y, Nair RMC, Matsua H, Redding TW, Debeljuk L, and White WF: Isolation and properties of the FSH and LH-releasing hormones. *Biochemical and Biophysical Research Communications* 43: 393-399, 1971.

23. Kastin AJ, Schally AV, Gud G, Midgely AR, Bowers CY and Gomez-Perez A: Administration of LH-releasing hormone to selected subjects. *Am J Obstet Gynecol* 108: 177-182, 1970.

24. Matsuo JH, Baba Y, Nair RMG, Amina A, and Schally AV: Structure of porcine LH and FSH releasing hormone. The proposed amino acid sequence. *Biochemical and Biophysical Research Communications* 43:1334-1339, 1971.

25. Donoso AD, Bishop W, Fawcett CP, Krulich L, and McCann SM: Effects of drugs that modify brain monoamine concentrations on plasma gonadotropin and prolactin levels in the rat. *Endocrinol* 89:774, 1971.

26. Speroff L, Glass RH, and Kase N: *Clinical Gynecologic Endocrinology and Infertility.* Baltimore, Williams and Wilkins, 1973, p. 26.

27. Green JD and Hariss GW: The neurovascular link between the neurohypophysis and adenohypophysis. *J Endocrinol* 5:136-146, 1947.

28. Phifer RF, Midgley AR, and Spicer SS: Immunohistologic and histologic evidence that FSH and LH are present in the same cell type in the human pars distalis. *J Clin Endocrinol Metab* 36:125-141, 1973.

29. Marsh JM, Mills TM, and Lamaire WJ: Cyclic AMP synthesis in rabbit graafian follicles and the effect of LH. *Biochimica et biophysica acta.* 273:389-394, 1972.

30. Ross GT and Vande Wiele RL: The ovaries. In: Williams' *Textbook of Endocrinology.* Philadelphia, Saunders, 1974, p. 368.

31. Baker TG: A quantitative and cytologic study of germ cells in human ovaries. *Proc Roy Soc* 158:417, 1963.

32. Speroff L, Glass RH, and Kase NG: *Clinical Gynecologic Endocrinology and Infertility.* Baltimore, Williams and Wilkins, 1973, p. 33.

33. Beacham DW and Beacham W: Crossen's *Synopsis of Gynecology.* St. Louis, Mosby, 1963, p. 336.

34. Goldfarb AF: In: Fifteenth Annual Post Graduate Course in a Clinical and Histopathological Survey of Gynecology and Obstetrics. St. Barnabas Medical Center, Livingston, New Jersey, Oct. 9, 1975.

35. Bleam G, Roberts KD, and Chapelaine A: The *in vitro* and *in vivo* uptake and metabolism of steroids in adipose tissue. *J Clin Endocrinol Metab* 39:236, 1974.

36. Schindler AE, Ebert A, and Friedrich E: Conversion of androstenedione to estrone by human fat tissue. *J Clin Endocrinol Metab* 35:627, 1972.

37. Reynich JV: Etiology and management of functional amenorrhea. *Contemporary OB-Gyn* 6:107-110, 1975.

38. Wallach EE, Garcia CR, and Pincus G: Anovulation in hospitalized mental patients. *Am J Obstet Gynecol* 93:72, 1965.

39. Peyser MR, Aydor D, Harell A, Toaff R, and Cocdone T: Stress-induced delay of ovulation. *Obstet and Gynecol* 42:667-671, 1975.

40. Pria BD, Auderbert A, Greenblatt RB: Current thoughts on the management of dysfunctional uterine bleeding. *Am J Obstet Gynecol* 105:1185, 1969.

41. Cope E: Dysfunctional uterine bleeding. *Br Med J* 2:631-632, 1971.

42. Yen SSG, Vela P, and Rankin J: Inappropriate secretion of FSH and LH in polycystic ovarian disease. *J Clin Endocrinol Metab* 30:435, 1970.

43. Goldzieher JW and Green JA: The polycystic ovaries. I. Clinical and Histologic Features. *J Clin Endocrinol* 22:325-338, 1962.

44. Pildes RB: The anovulatory ovary. In: *Controversies in Obstetrics and Gynecology.* Philadelphia, Lippincott, 1974, p. 355-365.

45. Aksel S and Jones GS: Etiology and treatment of dysfunctional uterine bleeding. *Obstet and Gynecol* 44:1-13, 1974.

46. Scommegna A and Damoski WP: Dysfunctional uterine bleeding. *Clinics in OB-Gyn* 16:221, 1973.

47. Kupperman HD, Epstein JA, Blatt MHG, and Stone A: The diagnostic and therapeutic uses of intravenous estrogen in anovulation. *Fertil Steril* 9:26, 1958.

48. Garcia C: Endocrine approach in the management of dysfunctional uterine bleeding. *Clinics in OB-Gyn* 13:460, 1969.

49. Southam AL and Richert RM: Prognosis for adolescents with menstrual abnormalities. *Am J Obstet Gynecol* 94:637-643, 1966.

50. Fraser IS and Baird DT: Endometrial cystic glandular hyperplasia in adolescent girls. *J Obstet Gynecol Br Com'wealth* 79:1009-1015, 1972.

51. Jackson RL and Dockerty MB: The Stein Leventhal

syndrome: Analysis of 43 cases with special reference to association with endometrial carcinoma. *Am J Obstet Gynecol* 73:162-172, 1957.

52. Aksel S, Wentz AC, and Jones GS: Anovulatory infertility associated with adenocarcinoma and adenomatous hyperplasia of the endometrium. *Obstet and Gynecol* 43:1, 1974.

53. Povey WG: Abnormal bleeding at puberty and climacteric. *Clinics in OB-Gyn* 13:473, 1969.

54. Greenblatt RB: Chemical induction of ovulation. *Fertil Steril* 12:402-404, 1961.

55. Murray M and Osmond Clark F: Pregnancy results following treatment with clomiphene citrate. *J Obstet Gynecol Br Com'wealth*. 78:1108-1114, 1971.

56. Igarashi M. Ibuke T, Kuho H, Kamoika J, Yokota W, Ebora Y, and Malsumoto S: Mode and site of action of clomiphene. *Am J Obstet Gynecol* 97:120-123, 1967.

57. Kato J, Kobayashi T, and Villee CA: Effect of clomiphene on the uptake of estradiol by the anterior hypothalamus and hypophysis. *Endocrinol* 82:1049-1052, 1968.

58. Roy S, Greenblatt RB, Mahesh VB, and Junck EC: Clomiphene citrate-further observations on its use in induction of ovulation in the human and its mode of action. *Fertil Steril* 14:575-595, 1963.

59. Kistner RW: Use of clomiphene citrate, human chorionic gonadotropins and human menopausal gonadotrotropin for induction of ovulation in the human female. *Fertil Steril* 17:579-604, 1966.

60. Kase N, Mroueh A, and Olson LE: Clomid therapy for anovulatory infertility. *Am J Obstet Gynecol* 98:1037, 1967.

61. Rust LA, Israel R, and Mishell DR: An individualized therapeutic regimen for clomiphene citrate. *Am J Obstet Gynecol* 120:785-790, 1974.

62. Speroff L, Glass RH, and Kase NG: *Clinical Gynecologic Endocrinology and Infertility*. Baltimore, Williams and Wilkins, 1973, p. 220.

63. Brown WE, Bradbury JT, and Junck EC: The effect of estrogen and other steroids on the pituitary gonadotropins in women. *Am J Obstet Gynecol* 65:733-747, 1953.

64. Vande Wiele RL, Bogumil J, Dyrenforth I, Ferin M, Jewelewicz R, Warren M, Rizkallah T, and Mikhail G: Mechanism regulating the menstrual cycle in women. *Recent Prog Hormone Research* 26:63, 1970.

65. Gemzell CA, Diczfalusy E, and Tillinger KG: Clinical effects of human pituitary follicle stimulating hormone (GSH). *J Clin Endocrinol Metab* 18:333, 1958.

66. Vande Wiele RL and Turksoy RW: Treatment of amenorrhea and of anovulation with human menopausal and chorionic gonadotropin. *J Clin Endocrinol Metab* 25:369, 1965.

67. Kase N, Mroueh A, and Buxton CI: Pergonal therapy of anovulatory infertility. *Am J Obstet Gynecol* 100:176, 1968.

68. Spadoni LR, Cox DW, and Smith DC: Use of human menopausal gondalorin for the induction of ovulation. *Am J Obstet Gynecol* 120:988-992, 1974.

69. Gemzell C and Roes P: Pregnancies following treatment with human gonadotropins with special reference to the problem of multiple birth. *Am J Obstet Gynecol* 94:490, 1966.

70. Kastin AJ, Zarate A, Midgely AR, Canales ES, and Schally AV: Ovulation confirmed by pregnancy after infusion of porcine LH-RH. *J Clin Endocrinol* 33:980, 1971.

71. Zarate S, Canales ES, Schally AV, Ayala-Uddes L, and Kastin AJ: Successful induction of ovulation with synthetic luteinizing hormone-releasing hormone in anovulatory infertility. *Fertil Steril* 23:674, 1972.

72. Nillius SJ and Wide L: Variation in LH and FSH response to LH-releasing hormone during the menstrual cycle. *J Obstet Gynecol Br Com'wealth* 79:865-873, 1972.

73. Pesser M, McNeilly AS, Anderson DC, Marshall JC, Marsoulis P, Ormston BJ. Alexander L, and Collins WP: Hormonal responses to synthetic luteinizing hormone and follicle stimulating hormone-releasing hormone in man. *Br Med J* 3:267-271, 1972.

74. Oettinger M, Psaroualakis A, Mahesh VB, and Greenblatt RB: Effect of LHRH stimulation in anovulatory women. *Obstet and Gynecol* 45:614-618, 1975.

75. Keller PJ: Treatment of anovulation with synthetic luteinizing hormone-releasing hormone. *Am J Obstet Gynecol* 116:698-710, 1973.

76. Jones GS and DeMorses-Ruehsen M: A new syndrome of amenorrhea in association with hypergonadotropism and apparently normal ovarian follicular apparatus. *Am J Obstet Gynecol* 104:597-60, 1969.

77. Campenhout JV, Vauclair R, and Maraghi I: Gonadotropin-resistant ovaries in primary amenorrhea. *Obstet and Gynecol* 40:6-12, 1972.

78. "Gonadotropin-resistant ovaries" syndrome in association with secondary amenorrhea. *Am J Obstet Gynecol* 120:257-262, 1974.

79. Dewhurst CJ, Dekoos EB, and Ferreira HP: The resistant ovary syndrome. *Br J Obstet Gynecol* 82:341-345, 1975.

Old Short Hills Road, Livingston


COLACE prevents hard, dry stools common to constipation . . . and does it without laxative stimulation. COLACE assists peristalsis by simply letting intestinal water permeate stools.
COLACE helps to prevent painful straining at stool—particularly important in patients with delicate anorectal disorders. Safe and non-habit forming . . . COLACE, the simple water way to ease constipation from infancy to old age.
Simple drops of water help make COLACE® the most widely used stool softener.
COLACE®
dioctyl sodium sulfosuccinate
Mead Johnson
PHARMACEUTICAL DIVISION

COMPATIBILITY



Eastern Tiger Swallowtail Butterfly
(Papilio glaucus)

Does it influence your choice of a peripheral/cerebral vasodilator*?

Vasodilan–compatible with coexisting diseases (e.g., glaucoma, diabetes)

Vasodilan has not been reported to affect the course of coexisting disease; it has not been reported to affect blood sugar levels or to raise intraocular pressure.

Vasodilan–compatible with concomitant therapy

Vasodilan has not been reported to affect the treatment of coexisting disease; it is compatible with such drugs as hypoglycemics and miotics.

Vasodilan–compatible with your total regimen for vascular insufficiency

Vasodilan can be a valuable adjunct in planning a total therapeutic program for vascular insufficiency.

*__Indications:__ Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows:

Possibly Effective:

1. For the relief of symptoms associated with cerebral vascular insufficiency.
2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease.

Final classification of the less-than-effective indications requires further investigation.

Composition: Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg.
Vasodilan injection, isoxsuprine HCl, 5 mg., per ml.

Dosage and Administration: Oral: 10 to 20 mg., three or four times daily.
Intramuscular: 5 to 10 mg.(1 or 2 ml.) two or three times daily. Intramuscular administration may be used initially in severe or acute conditions.

Contraindications and Cautions: There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

Parenteral administration is not recommended in the presence of hypotension or tachycardia.

Intravenous administration should not be given because of increased likelihood of side effects.

Adverse Reactions: On rare occasions oral administration of the drug has been associated in time with the occurrence of hypotension, tachycardia, nausea, vomiting, dizziness, abdominal distress, and severe rash. If rash appears the drug should be discontinued.

Although available evidence suggests a temporal association of these reactions with isoxsuprine, a causal relationship can be neither confirmed nor refuted.

Administration of single dose of 10 mg. intramuscularly may result in hypotension and tachycardia. These symptoms are more pronounced in higher doses. For these reasons single intramuscular doses exceeding 10 mg. are not recommended. Repeated administration of 5 to 10 mg. intramuscularly at suitable intervals may be employed.

Supplied: Tablets, 10 mg., bottles of 100, 1000, 5000 and Unit Dose; Tablets, 20 mg., bottles of 100, 500, 1000, 5000 and Unit Dose; Injection, 10 mg. per 2 ml. ampul, box of six 2 ml. ampuls.

U.S. Pat. No. 3,056,836



VASODILAN® 20-mg tablets

(ISOXSUPRINE HCl)

20 mg q.i.d. recommended dosage

Mead Johnson
PHARMACEUTICAL DIVISION

© 1978 MEAD JOHNSON & COMPANY • EVANSVILLE, INDIANA 47721 U.S.A. MJL 7-4237R

This asthmatic isn't worried about his next breath...



he's active
he's effectively maintained on

QUIBRON®

Each capsule or tablespoon (15 ml) elixir contains theophylline (anhydrous) 150 mg and glyceryl guaiacolate (guaifenesin) 90 mg. Elixir: alcohol 15%

- high theophylline for effective around-the-clock therapy
- 100% free theophylline
- individualized theophylline dosage schedule

Indications: For the symptomatic treatment of bronchospastic conditions such as bronchial asthma, asthmatic bronchitis, chronic bronchitis, and pulmonary emphysema.
Dosage: Initial: Adults: 1-2 capsules or 1-2 tablespoonfuls elixir every 6-8 hours, children 8-12: 1 tablespoonful or one capsule every 6-8 hours and children under 8: 3 to 5 mg theophylline/kg body weight every 6-8 hours. Theophylline dosage may be cautiously increased to 2000 mg/24 hr in adults or 7 mg/kg in children; monitoring of serum theophylline levels at higher dosages is recommended.
Precautions: Do not administer more frequently than every 6 hours, or within 12 hours after rectal dose of any preparation containing theophylline or aminophylline. Do not give other xanthine derivatives concurrently. Use in case of pregnancy only when clearly needed.
Adverse Reactions: Theophylline may exert some stimulating effect on the central nervous system. Its administration may cause local irritation of the gastric mucosa, with possible gastric discomfort, nausea and vomiting. The frequency of adverse reactions is related to the serum theophylline level and are not usually a problem at serum theophylline levels below 20μg/ml.
How Supplied: Capsules in bottles of 100 and 1000 and unit-dose packs of 100; Elixir in bottles of 1 pint and 1 gallon.

Mead Johnson
PHARMACEUTICAL DIVISION

© 1978 Mead Johnson & Company • Evansville, Indiana 47721 U.S.A MJL 6·4220R

Three cases of Coombs' positive hemolytic anemia are presented; an acute, transient episode associated with an upper respiratory infection, responsive to supportive care (Group I), a case of autoimmune hemolytic anemia, associated with thrombocytopenia and numerous relapses, unresponsive to corticosteroids and splenectomy (Group II), and a case of autoimmune hemolytic anemia associated with thrombocytopenia and nephritis which was responsive to steroids and associated with an underlying immunologic disorder (Group III).

Immunologic Hematologic Diseases in Infancy

B. R. Ryan, M.D., Morristown*
T. R. Walters, M.D., Newark*

Acquired autoimmune hemolytic anemia continues to challenge both the immunologist and the hematologist. The anemia is the result of extracorpuscular destruction of erythrocytes. The diagnosis is made on the basis of laboratory findings of a hemolytic process plus evidence of an antibody directed against the host's erythrocyte antigens. Although this antibody is commonly detected through a positive Coombs' test, there are cases of autoimmune hemolytic anemia where this test is negative or fluctuates in the midst of the hemolytic process. Recent new techniques for the elucidation of bound erythrocyte antibody have shown that there may be instances where, quantitatively, the bound antibody is beneath the critical level needed for detection by standard antiglobulin tests.[1]

The etiology remains obscure. A common hypothesis is that there is a breakdown of immunologic tolerance resulting in the formation of antibodies directed against the host's own unmodified normal erythrocyte antigen.[2] An alternative hypothesis is that the erythrocyte antigen itself is in some way altered triggering the antibody response from an intact immune system.[3]

Clinically, autoimmune hemolytic anemia has been classified as idiopathic or secondary to some underlying disorder. The idiopathic variety is a primary disorder without any associated diseases and more commonly found in the pediatric age group. Dacie has reported 62 percent of his series as idiopathic and Dausset 73 percent.[2,3] Secondary autoimmune hemolytic anemia has been associated with collagen diseases, such as systemic lupus erythematosus, scleroderma, polyarteritis, dermatomyositis, neoplasms, leukemia, lymphomas, and liver disease. It is commonly chronic and may precede the underlying disorder in onset.

Serologically, a positive Coombs' test can define three categories of autologous erythrocyte antibody. There are those cases in which antigamma-serum agglutinates the patients' erythrocytes corresponding to an IgG antibody effect. In other cases, only the non-gamma Coombs' reagent agglutinates the erythrocytes, incriminating a non-gamma globulin, i.e., complement protein. The third category consists of those instances in which both antigamma and non-gamma antiserum agglutinates the patients' erythrocytes, suggesting a combination of gamma globulin antibody and complement protein. Gamma globulins also can be characterized by the type of behavior they exhibit *in-vitro*. Those that agglutinate at 37°C are warm antibodies, usually IgG. but may be IgM or IgA and may show Rh specificity. The cold type which agglutinates at 4°C, is usually IgM and rarely IgG. The adult patient is more likely to have Rh specific antibodies, whereas the pediatric patient often exhibits an antibody of undetermined specificity.[4]

The literature on autoimmune hemolytic

*Dr. Ryan is Clinical Instructor in Pediatrics, New Jersey Medical School, Morristown Memorial Hospital; Dr. Walters is Professor of Pediatrics and Director, Division of Hematology-Oncology, New Jersey Medical School.

anemia in the pediatric age group is limited, especially as related to infants. Prior to 1974, there were only eleven reported cases of autoimmune hemolytic anemia in infants less than three months old.[7,8] Zuelzer and Habibi reviewed autoimmune hemolytic anemia in the pediatric age group.[4,9] Both divided their cases into acute, transient autoimmune hemolytic anemia resulting in recovery and prolonged, chronic variety with numerous relapses. In addition, Zuelzer described a group of patients who, in spite of a chronic course, eventually recovered.

There have been several reports of thymectomy in infants with autoimmune hemolytic anemia.[6,10] Dacie reported that at least five infants have had a thymectomy with improvement noted in four cases. More data are needed before conclusive statements can be made.

Case Reports

This paper presents three cases of Coombs' positive autoimmune hemolytic anemia in infancy. They show the variety of presentation, spectrum of clinical manifestations and the varying response to therapy found in the pediatric age patient.

Case 1 – An 18-month-old male was admitted to Beth Israel Medical Center in June, 1975. Two days prior to admission he developed an upper respiratory infection and fever. On the day of admission jaundice and darkly colored urine were observed.

On physical examination positive findings included icterus and hepatosplenomegaly of 3 and 5 cm respectively. The initial hemoglobin was 6 gm/dl and the reticulocyte count was 1.8 percent. Subsequently, brisk reticulocytosis developed, in the range of 18 to 24 percent. The platelet count was 400,000/mm^3. Hemoglobin electrophoresis was AA and G6PD activity was normal. Total bilirubin was 2.1 mg/dl. The direct and indirect Coombs' test were moderately positive. Elution showed the presence of a non-specific antibody. The cold agglutination test was negative. Urinalysis was negative and the patient's maximum BUN was 23 mg/dl.

Treatment consisted of supportive care. Neither corticosteroids nor blood transfusions were administered. At the time of discharge, the patient was clinically well, on no medication, with a hemoglobin of 7.2 gm/dl and a recticulocyte count of 4.5 percent. One month later, the hemoglobin had spontaneously risen to 13 gm/dl.

Case 2 – An 8-month-old female was admitted to Elizabeth General Hospital in November, 1974. On a routine physical examination, she was found to be pale. No other positive findings were noted. The past medical history revealed the patient had been anorexic and had lost an undetermined amount of weight.

The initial blood count showed a hemoglobin of 6.0 gm/dl with a reticulocyte count of 16 percent. The WBC was 10,200. On the peripheral blood smear the platelets were considered adequate. The direct Coombs' test was 2+. There was no specificity. The urinalysis was negative. Corticosteroid therapy was started. Following discharge, she was lost to follow-up and compliance for medication was considered poor.

Seven months after the initial hospitalization, medical attention was sought for mild vaginal bleeding. On physical examination petechiae and multiple hematomata were noted.

Laboratory studies revealed a hemoglobin of 12 gm/dl and a reticulocyte count of 1.5 percent. The WBC was 2,800 and repeatedly below 5,000. The platelet count was 2,000/mm^3. The BUN was 16 mg/dl with a creatinine of 1.0 mg/dl. The lupus erythematosus (LE) preparation, the serologic test for syphilis (STS) and the anti-ANA tests were negative.

Intermittent corticosteroid therapy was begun; however, there was no change in her clinical or laboratory status. Subsequently, therapy was increased to prednisone 40 mg/m^2/d, which was associated with a rise in both the white blood cell and platelet count. After three months, the platelet count had risen to 93,000 mm^3. Subsequently, the patient developed recurrent episodes of a Coombs' positive hemolytic anemia and/or thrombocytopenia, associated with upper respiratory infections and unresponsive to corticosteroids. A splenectomy was performed. The subsequent clinical course has been complicated by an occasional episode of thrombocytopenia associated with upper respiratory infections. No specific therapy has been given.

Case 3 – A 6-month-old male was admitted to Children's Hospital, Newark, in March, 1975, with fever, pallor, and petechiae. The patient had been in good health until three weeks prior to admission when he received his second oral polio and DPT immunization. He developed a persistent fever and was started on penicillin. Three days prior to admission the mother noted petechiae over the truncal area. The day before admission he had a brief episode of epistaxis.

Physical examination revealed an acutely ill, pale, irritable child with petechiae over the trunk, abdomen, and extremities. The liver and spleen were both enlarged to 8 cm below the costal margins.

The initial blood count showed a hemoglobin of 5 gm/dl, WBC 23, 900, and platelets of 25,000/mm^3. The reticulocyte count varied from 2 to 14 percent. The direct Coombs' test was 2+which was non-specific and showed panagglutination at 4°C, room temperature, and 37°C. A urinalysis showed a "telescopic" sediment including numerous red blood cell casts. The BUN was 11 mg/dl and creatinine 0.3 mg/dl. The creatinine clearance was normal. The LE preparation, STS, and anti-ANA tests were negative. Febrile agglutinins, monospot test, and tests for penicillin antibodies were also negative. Cytomegalic inclusion disease (CID) studies were negative. Studies on the mother showed a significant elevation of CID titer compatible with acute or past infection. Serum complement studies showed de-

creased activity, C_3 43 mg (normal 55-110) and B_1C 52 mg (normal 80-140). Immunoglobulin determination showed a markedly elevated level of IgG to 1, 720 mg/dl (normal 281-763 mg/dl), IgM 142 mg/dl (normal 36-149 mg/dl) and IgA 33 mg/dl (normal 14-76 mg/dl). A liver-spleen scan showed splenomegaly without evidence of increased splenic uptake.

Therapy consisted of packed red blood cell transfusion. A beneficial response followed the administration of prednisone, 60 mg/m^2/day. After four weeks, corticosteroid therapy was tapered. At that time the patient's physical findings and laboratory tests were normal. Two months later, he developed a upper respiratory infection with a recurrence of a Coombs' positive hemolytic anemia and thrombocytopenia. Corticosteroids were restarted and again associated with a remission.

A renal biopsy was performed because of the urinary sediment findings. Light microscopy showed hypercellular glomeruli. This was confirmed by electron microscopy (Figure 1). There were increased epithelial and mesangial cells. Most important was the finding of increased mesangial matrix which tended to push against the glomerular capillaries. Immunofluorescence studies showed glomerular deposition of IgM and complement. The findings were interpreted as compatible with, but not diagnostic of systemic lupus erythematosus. The child is currently off corticosteroid therapy, with normal peripheral blood counts and urinalysis.

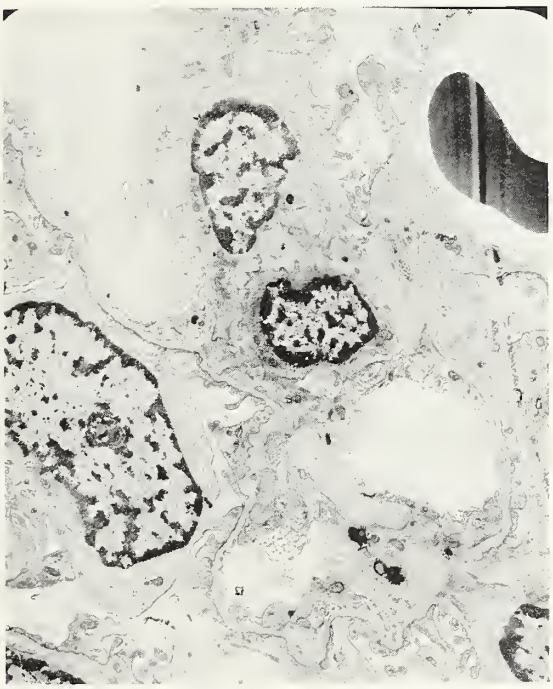


Figure 1—Electron micrograph of renal biopsy which shows increased mesangial matrix accumulation, a capillary containing RBC and distorted by enroachment of mesangial matrix and basement membrane with no definite evidence of thickening.

Discussion

The cases are presented to emphasize the varying manifestations of autoimmune hematologic disease in infants. The first patient represents a Coombs' positive hemolytic anemia responsive to supportive care. The second patient had a Coombs' positive hemolytic anemia associated with thrombocytopenia (Evan's syndrome) which was not responsive to corticosteroid therapy. This patient raises the role of splenectomy to control autoimmune disease unresponsive to immunosuppressive therapy. A beneficial response to hemolytic anemia following splenectomy has been reported when splenic scanning showed evidence of erythrocyte sequestration. However, the outcome of splenectomy is not predictable and must be weighed against the possibility of overwhelming sepsis in the splenectomized patient, especially when there is an underlying hematologic disorder.[12] There seemed to be a more favorable response when the indirect Coombs' test was negative, the antibody was of the gamma type and splenic sequestration was present. However, none of these correlations was statistically significant.[4,11] The third patient represents a Coombs' positive hemolytic anemia with thrombocytopenia and multisystem involvement. Because of the anemia, thrombocytopenia and glomerulonephritis, systemic lupus erythematosus (SLE) was considered but not immunologically proved. The focal mesangioproliferative changes; although compatible with SLE, were not diagnostic.

Reports of autoimmune hemolytic anemia in the pediatric age group are limited. Zuelzer and Habibi reported twenty-eight and eighty cases respectively.[9,14] One of Zuelzer's interpretations was the subdivision of autoimmune hemolytic anemia into three clinical groupings. Group I was characterized by young age, acute onset, normal immunoglobulins, and early recovery. Group II was characterized by a wide age range, chronic course, occasional purpura, abnormal immunoglobulins, and eventual recovery. All these patients were corticosteroid-dependent for months, but there was recovery within one to eight years. Group III was characterized by failure to thrive, purpura,

massive reticuloendothelial organomegaly, associated illnesses, indefinite duration, neutropenia, abnormal immunoglobulins, most often a deficiency in IgA, and a significant mortality.

Zuelzer has indicated cytomegalic infections as a possible cause. Habibi's findings also support the concept of an infectious etiology. He found twenty-three of the thirty-four patients with acute transient autoimmune hemolytic anemia had associated episodes suggestive of infection. The chronic cases were more likely to be associated with underlying systemic disorders other than infection. An attempt was made to correlate antibody type and eventual clinical outcome. He found 76 percent of the patients with complement-dependent antibody were the acute transient variety, whereas 78 percent of the patients with IgG or mixed IgG and complement-dependent antibody were associated with a chronic clinical course. It is difficult to attempt a prognosis when autoimmune hemolytic anemia is diagnosed. In general, neutropenia, thrombocytopenia, and reticulocytopenia indicate a more complicated course.[5]

Therapy in our patients, as in the literature, consisted in supportive care, immunosuppressive therapy, and splenectomy. Mortality in the Habibi review was 11.2 percent. This was exclusively in the chronic type.

The cases presented correlate with those reported concerning childhood, autoimmune hemolytic anemia. The first case is an example of Zuelzer's Group I, and acute self-limited autoimmune hemolytic anemia. Case 2 fits into Zuelzer's Group II because of the prolonged chronic clinical course. Case 3 correlated with Zuelzer's Group III because of the nephritic complication and with Habibi's prolonged chronic type. Habibi found 50 percent of his chronic type patients to have an associated disorder. The hypocomplementemia, glomerulonephritis and renal biopsy results in Case 3 suggest an underlying renal disorder.

References

1. Gilliland BC, Baxter E, and Evans RS: Red-cell antibodies in acquired hemolytic anemia with negative antiglobulin serum test. *N Engl J Med* 285:252-256, 1971.

2. Pirofsky B and Bardana EJ: Autoimmune hemolytic anemia 1. Clinical aspects. *Ser Haematol* 7 (3): 367-374, 1974.

3. Dacie JV: *The Hemolytic Anemias,* 2nd ed. New York, Grune and Stratton, 1962, pp 342-343.

4. Habibi B, *et al:* Autoimmune hemolytic anemia in children. A review of eighty cases. *Am J Med* 56: 61-69, 1974.

5. Dausset J and Colombani J: The serology and the prognosis of 128 cases of autoimmune hemolytic anemia. *Blood* 14: 1280-1301, 1959.

6. Dacie JV: Autoimmune hemolytic anemia. *Arch Intern Med* 135: 1293-1299, 1975.

7. Laski B, *et al:* Autoimmune hemolytic anemia in young infants. *J Pediar* 59:42-46, 1961.

8. Peters RW, Jacobs RA, Finklestein JZ, and Myhre BA: Autoimmune hemolytic anemia in a six-week-old infant. *Am J Dis Child* 127:268-270, 1974.

9. Zuelzer W, Mastrangelo R, Stulberg CS, Poulek MD, Page RH, and Thompson RI: Autoimmune hemolytic anemia. Natural history and viral immunologic interactions in childhood. *Am J Med* 49: 80-93, 1970.

10. Oski FA and Abelson NM: Autoimmune hemolytic anemia in an infant. Report of a case treated unsuccessfully with thymectomy. *J Pediatr* 67:752-757, 1965.

11. Allgood JW and Chaplin H Jr: Idiopathic acquired autoimmune hemolytic anemia. A review of 47 cases treated 1955 through 1965. *Am J Med* 43:254-273, 1967.

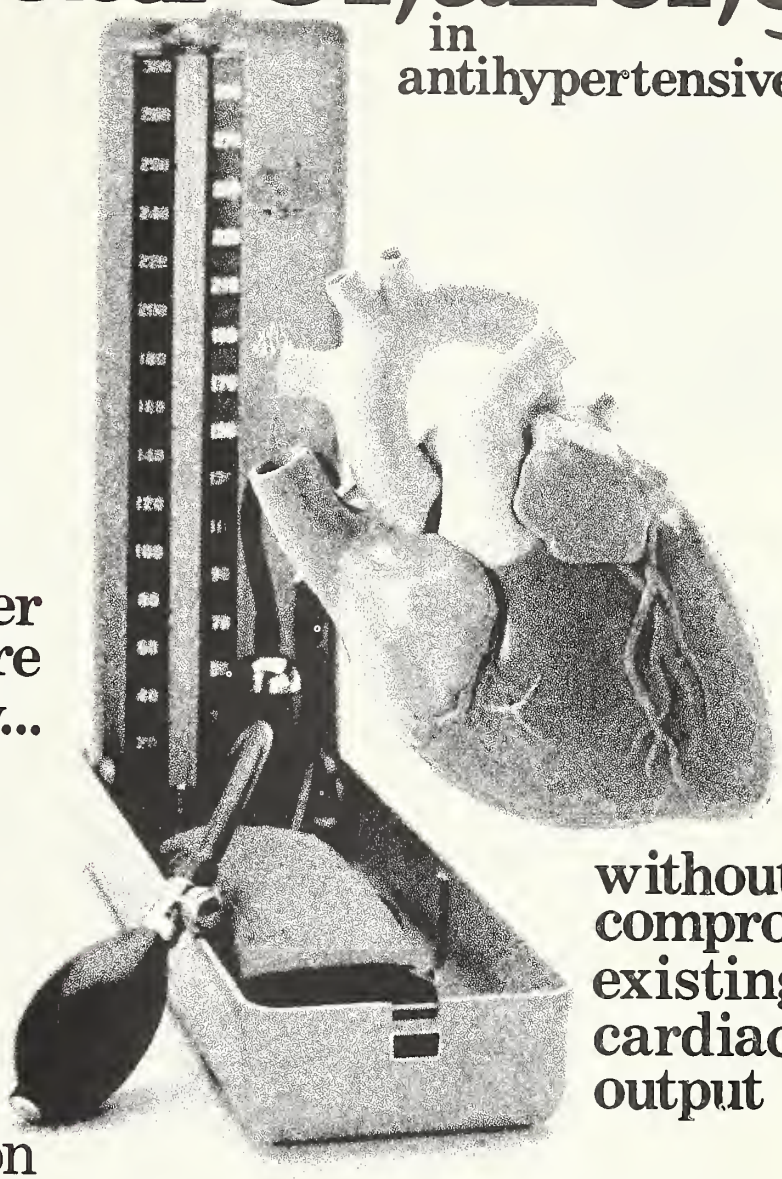
12. Horan M and Colebatch JH: Relation between splenectomy and subsequent infection. *Arch Dis Child* 37: 398-411, 1962.

69 West Main Street, Mendham

PATRONIZE OUR ADVERTISERS

A Dual Challenge

in antihypertensive therapy



to lower blood pressure effectively...

without compromising existing cardiac output

in hypertension

TABLETS: 250 mg, 500 mg, and 125 mg

ALDOMET® (METHYLDOPA | MSD)

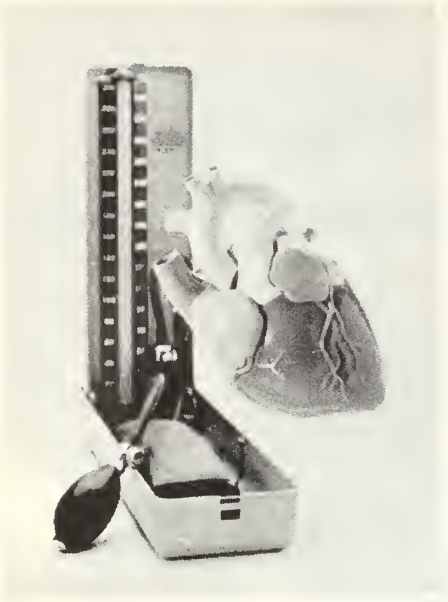
helps lower blood pressure effectively... usually with no direct effect on cardiac function—cardiac output is usually maintained

ALDOMET is contraindicated in active hepatic disease, hypersensitivity to the drug, and if previous methyldopa therapy has been associated with liver disorders.

It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. For more details see the brief summary of prescribing information.

For a brief summary of prescribing information, please see following page.

MSD
MERCK SHARP & DOHME



in hypertension

ALDOMET®

(METHYLDOPA|MSD)

helps lower blood pressure effectively... usually with no direct effect on cardiac function– cardiac output is usually maintained

Contraindications: Active hepatic disease, such as acute hepatitis and active cirrhosis; if previous methyldopa therapy has been associated with liver disorders (see Warnings); hypersensitivity.

Warnings: It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. Read this section carefully to understand these reactions.

With prolonged methyldopa therapy, 10% to 20% of patients develop a positive direct Coombs test, usually between 6 and 12 months of therapy Lowest incidence is at daily dosage of 1 g or less. This on rare occasions may be associated with hemolytic anemia, which could lead to potentially fatal complications. One cannot predict which patients with a positive direct Coombs test may develop hemolytic anemia. Prior existence or development of a positive direct Coombs test is not in itself a contraindication to use of methyldopa. If a positive Coombs test develops during methyldopa therapy, determine whether hemolytic anemia exists and whether the positive Coombs test may be a problem. For example, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at 6 and 12 months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first 3 weeks of therapy, occasionally with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first 2 to 3 months of therapy. In some patients the findings are consistent with those of cholestasis. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first 6 to 12 weeks of therapy or whenever an unexplained fever occurs. If fever and abnormalities in liver function tests or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients.

Rarely, a reversible reduction of the white blood cell count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur. Patients should be followed carefully to detect side reactions or unusual manifestations of drug idiosyncrasy.

Pregnancy and Nursing: Use of any drug in women who are or may become pregnant or intend to nurse requires that anticipated benefits be weighed against possible risks; possibility of fetal injury or injury to a nursing infant cannot be excluded. Methyldopa crosses the placental barrier, appears in cord blood, and appears in breast milk.

Precautions: Should be used with caution in patients with history of previous liver disease or dysfunction (see Warnings). May interfere with measurement of: urinary uric acid by the phosphotungstate method, serum creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, falsely high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. It is important to recognize this phenomenon before a patient with a possible pheochromocytoma is subjected to surgery. Methyldopa is not recommended for patients with pheochromocytoma. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites.

Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has recurred after dialysis in patients on methyldopa because the drug is removed by this procedure.

Adverse Reactions: *Central nervous system:* Sedation, headache, asthenia or weakness, usually early and transient; dizziness, lightheadedness, symptoms of cerebrovascular insufficiency, paresthesias, parkinsonism, Bell's palsy, decreased mental acuity, involuntary choreoathetotic movements; psychic disturbances, including nightmares and reversible mild psychoses or depression.

Cardiovascular: Bradycardia, aggravation of angina pectoris. Orthostatic hypotension (decrease daily dosage). Edema (and weight gain) usually relieved by use of a diuretic. (Discontinue methyldopa if edema progresses or signs of heart failure appear.)

Gastrointestinal: Nausea, vomiting, distention, constipation, flatus, diarrhea, mild dryness of mouth, sore or "black" tongue, pancreatitis, sialadenitis.

Hepatic: Abnormal liver function tests, jaundice, liver disorders.

Hematologic: Positive Coombs test, hemolytic anemia. Leukopenia, granulocytopenia, thrombocytopenia. Positive tests for antinuclear antibody, LE cells, and rheumatoid factor.

Allergic: Drug-related fever, lupus-like syndrome, myocarditis.

Other: Nasal stuffiness, rise in BUN, breast enlargement, gynecomastia, lactation, impotence, decreased libido, dermatologic reactions including eczema and lichenoid eruptions, mild arthralgia, myalgia.

Note: Initial adult dosage should be limited to 500 mg daily when given with antihypertensives other than thiazides. Tolerance may occur, usually between second and third months of therapy; increased dosage or adding a diuretic frequently restores effective control. Patients with impaired renal function may respond to smaller doses. Syncope in older patients may be related to increased sensitivity and advanced arteriosclerotic vascular disease; this may be avoided by lower doses.

How Supplied: Tablets, containing 125 mg methyldopa each, in bottles of 100; Tablets, containing 250 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 1000; Tablets, containing 500 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 500.

For more detailed information, consult your MSD representative or see full prescribing information.

Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

J6AMO7R1(709)

MSD MERCK SHARP & DOHME

Patients and families should be central participants in deciding all care, including heroic treatment. When they are, choices are more likely to be consistent with their values. In addition, their sense of worth and feeling of control constitute major antidotes to helplessness and depression. To bring about this state of affairs, some changes in medical and hospital practices may be necessary. Also, some changes in laws may be required.

Patients, Families, and Health Professionals*

Deciding the Use of Heroic Life-Sustaining Measures

Raymond S. Duff, M.D., New Haven

For this paper it is assumed that incapacitating anxiety and depression commonly result from feelings of helplessness.[1] In turn, helplessness is viewed as the consequence of a person's belief that little or no control over adversities can be realized. A person may argue—since nothing I can do will make any difference, I must be weak or worthless; I can only sit and stare. Fatalism and rigidity may predominate.

Among the adults or child patients and their families in my studies[2,3,4] few have adopted this bleak view. Given a chance to examine their predicaments, they often will sort out their preferences for all care including acceptance or rejection of heroic measures and of life or death. In the best of situations, they do this in ways Brody describes.[5] First, a problem is perceived that usually is obvious to all. Next, with the help of professionals willing and able to make their values explicit, alternative solutions are listed and examined one by one in terms of consequences such as consistency, values and loyalties of involved persons, and various ethical rules. Each proposed solution is put into the form of an ethical statement such as: In X situation, Y people should do Z thing. To make the best choices, each statement is reviewed in terms of cost/benefit results, suffering and inconvenience of patients, suffering and inconvenience of families, consequences for society, and expected impact on future generations. Each of these will be scrutinized briefly.

Cost/Benefit

Cost/benefit is viewed as dollar expenditure per benefit in terms of cure, control, or prevention of disease. In patient or family terms, the questions asked of health professionals usually are: How much money do you want? What are we getting for our money? In the case of failing hearts, for example, some will prefer to go "all out," although they rarely consider heart transplantation. Others will choose a different solution. For failing kidneys the choice is not easy to make, though it may be easier than in the case of hearts. At the other extreme, treating bacterial pneumonia or preventing polio, diphtheria, or tetanus offer obvious and easy choices for most persons.

From the professional's viewpoint, it is easy to recognize that protective paternalism may be necessary on occasion to overcome resistance of patients or families. This may be appropriate when costs are low and expected benefits are high or when expected results are minimal or even harmful and costs are astronomically high. As Richard McCormick has observed, physicians presumably refuse to treat the dying as if they could be cured or the curable as if they were dying.[6] Between these extremes, there are many conditions in which choices are not easy to make because the treatment of disease is not the same as the care of people. Here, suffering and inconvenience of patients and families enter the picture.

Suffering and Inconvenience

Suffering and inconvenience of patients may

*Read before the joint session of the Section on Pediatrics and Section on Psychiatry, 211th Annual Meeting, the Medical Society of New Jersey, May 15, 1977, Atlantic City. Dr. Duff is Associate Professor of Clinical Pediatrics, Yale University School of Medicine, and attending pediatrician, Yale-New Haven Hospital.

result from diseases (which is obvious) or from treatment (which is less obvious because no one wants to brag about it). Most healers think of themselves as among the angels even though their acts always do not justify that. In deciding care in any case, it is necessary to assess the personal insults one must endure in one's own terms. No other approach permits individuals always to have some minimal irreducible worth as persons. (Presumably, we need not defend that value.) This task is especially taxing when the patient from age or incapacity is unable to participate in deciding his own care. Despite this, professionals and families must muddle through the best they can, assuming their varied choices may be preferred by the patient if he could speak for himself or assuming the choice of families to protect themselves is sometimes justified.

Suffering and inconvenience of families may be felt so keenly by family members that they may gladly overlook the competing interests of the patient or, from guilt of that thought, they may overlook their own legitimate interests and possibly insist on treatment which may chiefly torment. Being in the position of having to choose whether to use heroic measures or to decide for life or death is like living in a crucible. The heat of it drives some into retreat.

The Consequences of Choices

The consequences of choices for care in our present society are increasingly considered by patients and families as well as by health professionals. People realize their decisions affect the taxes they pay and hence influence societal resource allocation. They do not want great distortions here because, among other reasons, these cannot be reconciled with the values they hold about a just social order or a good life. Some don't want to give up ball games or an education, for example.

Families regularly take into account the consequences of their choices for *future generations*, especially in the case of genetic risk. They usually prefer competence. As one couple stated, "since we want our grandchildren and future generations to have a fair chance of a good life, we will use existing knowledge to give them the best chance we can. We hope others will do likewise because we would like our children and grandchildren to have good mates."

Withdrawal from the heat of deciding care can be justified only if we can defend the proposition that helplessness is a healthy state or that not caring is approved. Without debate it is contended that neither view is acceptable. Yet, surrounding the crucible where care is decided are many conditions which may force withdrawal even if those deciding care can endure the heat within. A few of these conditions will be examined.

Some physicians willingly let patients and families retreat. They may even encourage this in their own retreat. Then, manifest suffering may be reduced while real suffering is increased. The physician, cool and distant, even may appear to be a great pillar of strength to weaklings, though the appearance is a fraud. Consider the situation of a woman at the end stages of multiple sclerosis. When an intern came to get yet another arterial blood sample, which hurts much more than a venipuncture, this woman, wanting to die without further interference, spoke her last rational words: "Get out of here, you blood-sucking bastard." Despite this request, she was kept alive for several additional days. In such ways, professional control over work may be extended and disease might possibly be conquered sooner. More likely the crusade against disease and suffering will be set back as people eventually become aware they are being deceived. Then, they withdraw from cooperation as they note the irony that their presumed protectors may become their persecutors. This has been seen already in the reluctance of some parents to have babies in hospitals or to be treated or to die there.

The law impinges upon those who decide care. We should not abuse or neglect and we must not kill. That is usually proper. But life-taking is clearly a complementarity of life-giving in this age where knowledge, prudently examined, cannot permit naive innocence to prevail.[7] It is unthinkable not to cure ills or reduce suffering

when these are possible. It should be equally unthinkable not to help people out of this life in ways which protect their values and their feelings. Some colleagues in law inform me that physicians in helping people die are too nervous about criminal liability. They say no physician has even been harmed much, if at all, for doing the best he can even if his choice kills his patient. On the other hand, physicians do not take comfort from these words. They find the charge of murder or manslaughter is something to be avoided even if it means ignoring conscience and setting aside patient and family preferences in deciding patient care.

The Karen Quinlan tragedy illustrates the difficulties. In situations like this the message from the doctors seems to be: take the threat of homicide laws away and we will do what we think should be done. The message of the courts to the doctors seems to be: no, let's leave the homicide laws fully intact, you do what you think is right, and we will review it afterward provided someone brings it to our attention.

A possible middle ground in this Alphonse-Gaston routine may have been suggested by one of my colleagues in law recently. He advised that health professionals share these decisions more widely so that if any prosecutions result, many necks will be in the noose. But wait, physicians respond, doctors and lawyers alike know that ultimate responsibility for care of individual patients rests upon that patient's physician—*singular.* And that singling out is disquieting.

Religion, Health Institutions and Organizations

Organized religion provides a host of guides, such as "the Lord gives and the Lord takes away," "the wages of sin is death," and "thou shalt not kill." There are a variety of other views including the "right to live" or the "right to die." As long as health professionals and citizens take these doctrines or rules literally and seriously, we will be in trouble. Often, they are contradictory. Also, using them, we may disrespect persons or reduce them to objects of little worth. Their autonomy will be eroded and their sense of helplessness unlimited as we abide by the constraints of one doctrine or another. Furthermore, it may be that the very roots of religion or of ethical thought may be lost, most of all by religious or ethics leaders themselves who ignore the conditions giving rise to those rules or doctrines in the first place and who disregard the oppressive consequences of adhering blindly to these rules.

Leaders of health institutions also are in this game. They are well aware of the statutes which guide the district attorneys and the courts and they regularly are advised about the position of various organized religious groups. Health institutions are necessarily political in their orientation and hence are intolerant of organized opposition. For example, they need a good public report in order to raise funds. They must generally appear to be "doing good." Doing good, carefully examined, may be incidental. As Ladd noted, institutions and their leaders cannot serve their legitimate purposes and at the same time practice virtue as Aristotle, for example, viewed prudence, compassion, and heroism.[8] Yet, this often is crucial in dealing with individual patients.

In this regard, an instructive case study of an institutional approach to these issues exists in California. A legislator, Barry Keene, strongly motivated from tragedy in his own family, introduced a bill to allow persons to die with dignity. The bill stated, "Every person has the right to die without prolongation of life by medical means." Various interest groups tacked on numerous amendments involving restrictions and legalisms (euphemistically called "safeguards" by some) of such complexity that Governor Brown's own health commissioner advised him to veto the bill on the grounds it might do more harm than good. But the bill was passed and signed into law.[9] Now the citizens are stuck with it.

Another aspect of these issues concerns what Freidson described as professional "moral entrepreneurship."[10] Physicians label illness, decide what is right or wrong, and prescribe or proscribe to treat it. While their role in this respect is usually benign, physicians are sub-

jected to the power of many special interest groups. One example is voluntary health organizations. These, often led by prominent physicians and "untrammeled by professional dignity, are the most flamboyant moral entrepreneurs in health, each concerned with arousing the public to give it the attention and resources that can be gained only at the expense of the other, each trying to create in the public mind profound pity and horror at its own specially chosen human failing." It is easy to understand how leaders of these organizations get away with excesses. I once heard a story of a presidential campaign in which Franklin Roosevelt asked a group of elderly citizens what this country needed most. One woman held up her arthritic hands and said, "this country needs a president with artheritis (sic)."

From the standpoint of a clinician faced regularly with the choice to use or not to use heroic measures with the implication often of life or death, several problems emerge. First, patients and families may have inordinately high expectations of professionals because they have taken seriously the propaganda particularly from voluntary health organizations, which may be misleading. They hope the propaganda is correct, but it rarely is. Dealing with the resulting confusion will require that the public and health professionals ask and answer several tough questions. While it is generally wrong to kill people, is it always wrong? Though it is generally right to extend living, is it always right? We all desire fairness, but must we always be fair? It is important to honor what seems proved and best in our traditions, but in our vastly changed circumstances, must we always do so? I believe the answer given by many thoughtful people to all these questions is no. They may be told by many, "when in doubt, choose life." But often they seem to be telling me something different: when in doubt, deliberate alternatives and puzzle over the values and loyalties. This permits some degree of control and reduces helplessness. Then, choose. Besides, the rule, "when in doubt, choose life" is nonsense. Since there is practically always some doubt in these affairs, there is no real choice, only a rigid doctrine, by this rule. Janis and Mann offer an orderly approach to conflict resolution. Unexamined change, "defensive avoidance," and panic are rejected while issues are examined vigilantly. Coping is far better this way.[11]

Deciding and the Risk of Mental Illness

Patients and families almost always will benefit by being informed early of the prognosis, with and without treatment, and of the limits of professional wisdom in deciding care. Such candor is not only refreshing but gives patients and families the chance to puzzle over their preferences as equals if not the superiors of health professionals, at least regarding ethical competence for themselves. This may give them hope and confidence despite loss of life. It will permit establishing conditions for healthy grieving and optimal social support. Meanwhile, health professionals may deliberate medical options, whether patients, family members, and health professionals can live with various ethical choices without disabling regret, and the share of responsibility which they should assume in respective situations to be most helpful to troubled people.

The foregoing approach is bold, and boldness is necessary to cope with many of life's trials. Sometimes, it is the only antidote to helplessness. Occasionally, the law may appear to be broken and, in fact, may be broken. If this is so in well deliberated choices, a logical stance for patients, families and health professionals might be: So what? We are practicing medicine, not law. In caring for people, can anyone make a better choice? This position rightly places upon any would-be meddler a heavy burden for justifying his interventions.

A few years ago, an older pediatrician had agreed with the parents of a very defective child to offer no treatment to save its life. Another physician who believed that all treatment should be administered to save the child's life suggested the parents be taken to court. But the pediatrician said, "Ok, if you insist. But I'll be at the side of the parents and against you. I and they may be wrong. But your rescue impulses may misguide you. You can do much harm especially since you act with a clear though unexamined

conscience." No one went to court. The baby died. The parents and a sibling cried and eventually recovered.

Perhaps the choice for that defective baby, like that made for many others, was a tragic one. But that does not prove it was necessarily inferior. If those who live most intimately with the consequences believe the choices were best, the risks of mental impairment would seem to be low. Indeed, clinical impressions gained over the years suggest that mental health may be improved as persons, through coping with tragedy, discover and develop greater inner strengths. But doing this will require the public and health professionals occasionally to ignore restrictive laws and rules as they act in accord with a higher order of caring.

References

1. Seligman, Martin EP: *Helplessness.* San Francisco, W.H. Freeman & Co., 1975.

2. Duff RS and Hollingshead AB: *Sickness and Society.* New York, Harper and Row, 1968.

3. Duff RS and Campbell AGM: Moral and ethical dilemmas in the special-care nursery. *N Engl J Med* 289:890-894, 1973.

4. Duff RS and Campbell AGM: On deciding the care of severely handicapped or dying persons: With particular reference to infants. *Pediatr* 57:487-493, 1976.

5. Brody Howard: *Ethical Decisions in Medicine.* Boston, Little Brown & Co., 1976.

6. McCormick Richard: The Karen Ann Quinlan case. *JAMA* 234:1057, 1975.

7. Burt Robert A: Authorizing death for anomalous newborns. In *Genetics and the Law,* Milunsky A and Annas G, Editors. New York, Plenum Press, 1975, pp. 435-450.

8. Ladd John: Morality and the ideal of rationality in formal organizations. *The Monist* 54:488-516, 1970.

9. Garland Michael: Politics, legislation and natural death. *The Hastings Center Report* 6:5-6, 1976.

10. Freidson Eliot: *Profession of Medicine.* New York, Dodd, Mead, 1970.

11. Janis Irving and Mann Leon: Coping with decisional conflict. *Am Scient* 64:657-667, 1976.

333 Cedar Street, New Haven

212th Annual Meeting — May 6-9, 1978

Holiday Inn and Howard Johnson's Regency Motor Hotel Atlantic City

House of Delegates	
Golden Merit Award Ceremony and Reception	**Holiday Inn**
Scientific Sessions	
Reference Committees	**Holiday Inn/Howard Johnson's**
Saturday Evening Reception/Dinner	**Howard Johnson's**
Inaugural Reception/Dinner	
Dinner Dance	

Note: Since all major hotels are under reconstruction or alteration, we will be unable to present exhibits. We regret this limitation on our meeting and anticipate resuming exhibits in 1979.

COLD FEET
LEG CRAMPS
TINNITUS
DISCOMFORT
ON STANDING



LIPO-NICIN

A PERIPHERAL VASODILATOR

IMMEDIATE or GRADUAL

nicotinic acid therapy

IMMEDIATE RELEASE

LIPO-NICIN/100 mg.
Each blue tablet contains:
Nicotinic Acid ..... 100 mg.
Niacinamide ..... 75 mg.
Ascorbic Acid ..... 150 mg.
Thiamine HCL (B-1) .. 25 mg.
Riboflavin (B-2) ..... 2 mg.
Pyridoxine HCL (B-6).. 10 mg.
DOSE: 1 to 5 tablets daily.
AVAILABLE: Bottles of 100, 500, 1000.

LIPO-NICIN/250 mg.
Each yellow tablet contains:
Nicotinic Acid ..... 250 mg.
Niacinamide ..... 75 mg.
Ascorbic Acid ..... 150 mg.
Thiamine HCL (B-1) . 25 mg.
Riboflavin (B-2) ..... 2 mg.
Pyridoxine HCL (B-6).. 10 mg.
DOSE: 1 to 3 tablets daily.
AVAILABLE: Bottles of 100, 500, 1000.

GRADUAL RELEASE

LIPO-NICIN/300 mg.
Each time-release capsule contains:
Nicotinic Acid ..... 300 mg.
Ascorbic Acid ..... 150 mg.
Thiamine HCL (H-1) .. 25 mg.
Riboflavin (B-2) ..... 2 mg.
Pyridoxine HCL (B-6).. 10 mg.
In a special base of prolonged therapeutic effect.
DOSE: 1 to 3 tablets daily.
AVAILABLE: Bottles of 100, 500.

Indications: For use as a vasodilator in the symptoms of cold feet, leg cramps, dizziness, memory loss or tinnitus when associated with impaired peripheral circulation. Also provides concomitant administration of the listed vitamins. The warm tingling flush which may follow each dose of LIPO-NICIN 100 mg. or 250 mg. is one of the therapeutic effects that often produce psychological benefits to the patient. **Side Effects:** Transient flushing and feeling of warmth seldom require discontinuation of the drug. Transient headache, itching and tingling, skin rash, allergies and gastric disturbance may occur. **Contraindications:** Patients with known idiosyncrasy to nicotinic acid or other components of the drug. Use with caution in pregnant patients and patients with glaucoma, severe diabetes, impaired liver function, peptic ulcers, and arterial bleeding.

BROWN THE BROWN PHARMACEUTICAL CO., INC. 2500 West Sixth Street, Los Angeles, California 90057

Write for Literature and Samples

REFER TO PDR

Officially Endorsed by *The Medical Society of New Jersey*

a new group major medical program for Doctors

- LOW RATES
- BROAD COVERAGE
- OPEN ENROLLMENT – JUNE

For More Information Contact
Donald F. Smith and Associates

Research Park, 1101 State Road • Princeton, New Jersey 08540 • (609) 924-8700 or (201) 622-6046

Underwritten by New Jersey Blue Cross-Blue Shield.

CASE REPORTS

A case of pylephlebitis with multiple bacteroides liver abscesses and bacteremia, occurring after appendectomy for acute appendicitis, is described. The abscesses were identified and followed by serial liver scans, and the portal vein thrombosis was confirmed by angiography. A successful outcome followed intravenous clindamycin therapy after other antibiotics had failed. The indications for surgical drainage of large liver abscesses, recommended by others, is not negated by this report.

Pylephlebitis and Multiple Liver Abscesses Due to Bacteroides

Successful Treatment with Clindamycin

Norman Rosenberg, M.D.,
S. F. Konigsberg, M.D.,
S. B. Schwarcz, M.D., New Brunswick

Pylephlebitis with secondary multiple hepatic abscesses, although an uncommon complication of acute appendicitis in the pre-antibiotic era, was, nevertheless, encountered one or more times in the surgical experience of most surgeons of that time. Almost all patients with that dread complication succumbed to the disease and the systemic sepsis with which it was associated. Today's surgeons may complete their careers without ever seeing such a patient. We are reporting a case in which multiple intrahepatic abscesses and portal thrombosis were demonstrated by isotope liver scanning technic and angiography respectively, and in which conservative treatment with intravenous clindamycin resulted in cure.

Case Report

A 25-year-old female had been admitted to St. Peter's Medical Center three weeks before for acute appendicitis with perforation for which an appendectomy with drainage was performed. Her wound healed per primam after removal of the drain. Since leaving the hospital, she felt weak and dizzy and had one brief episode of syncope, following which she was re-admitted.

On entering the hospital (January 17, 1973) she appeared pale, anxious, and slightly icteric. Her blood pressure was 90/60, her pulse was 120, and her temperature was 98°F. The liver was enlarged two fingers below the right costal margin, and was non-tender. The spleen was not palpable. Her leucocyte count on admission was 40,500 with 88 percent polymorphonuclear leucocytes of which 17 percent were non-segmented. The hemoglobin was 6.5 gms/dl and the hematocrit 21 percent. Urinalysis revealed a trace of albumin. The serum bilirubin was 2.3 mg/dl and the alkaline phosphatase was elevated to 492 units. The serum lactic dehydrogenase (LDH) was 600. The serum glutamic oxalacetic transaminase (SGOT) was 182. The serum albumin was 1.9 gms/dl. The diagnosis on admission was anemia and sepsis with possible hemolysis. Liver abscess was also suggested. The first week in the hospital she was febrile despite large doses of cepholathin (Keflin®) and Kanamycin®. The temperature rose to 105.8°F and was associated with hypotension (Figure 1).

The patient was felt to be in endotoxic shock due to pylephlebitis, secondary to her previous appendicitis. A liver scan, using technetium, Tc 99m. sulfur colloid, showed three radiolucent defects which were compatible with a diagnosis of multiple liver abscesses. (Figure 2A).

A blood culture taken five days after admission showed gram negative pleomorphic anaerobic bacilli resembling bacteroides. The organisms were resistant to tetracycline but sensitive to chloramphenicol. The patient was started on large doses of hydrocortisone (one gram daily) and large doses of chloramphenicol (one gram every six hours intravenously). She responded to this regimen with an abrupt drop in temperature, but 36 hours after discontinuing the steroids, there was a recrudescence of fever to 103.4°F, with recurrence of hypotension. At this time hydrocortisone was again resumed and carbenicillin was added. Again, within 24 hours, the temperature promptly subsided, probably due to the masking effect of the steroids. Mild fever persisted for the next nine days. During this period, repeat liver scans showed more numerous filling defects in the liver and the older ones became larger. After tapering the steroid and chloromycetin dosage, she again became febrile, with temperatures ranging from 101°F. to 104.6°F. Additional blood cultures corroborated the presence of gram negative rods, subsequently identified as belonging to the bacteroides family. The exact strain was never identified.

At this time a supply of the then newly available parenteral

*From the Department of General Surgery, St. Peter's Medical Center, New Brunswick, New Jersey. Dr. Rosenberg is Clinical Professor of Surgery, and Dr. Konigsberg is Assistant Clinical Professor of Surgery, Rutgers Medical School, CMDNJ. Reprint requests may be sent to Norman Rosenberg, M.D., 10 Lincoln Avenue, Highland Park, New Jersey 08904.

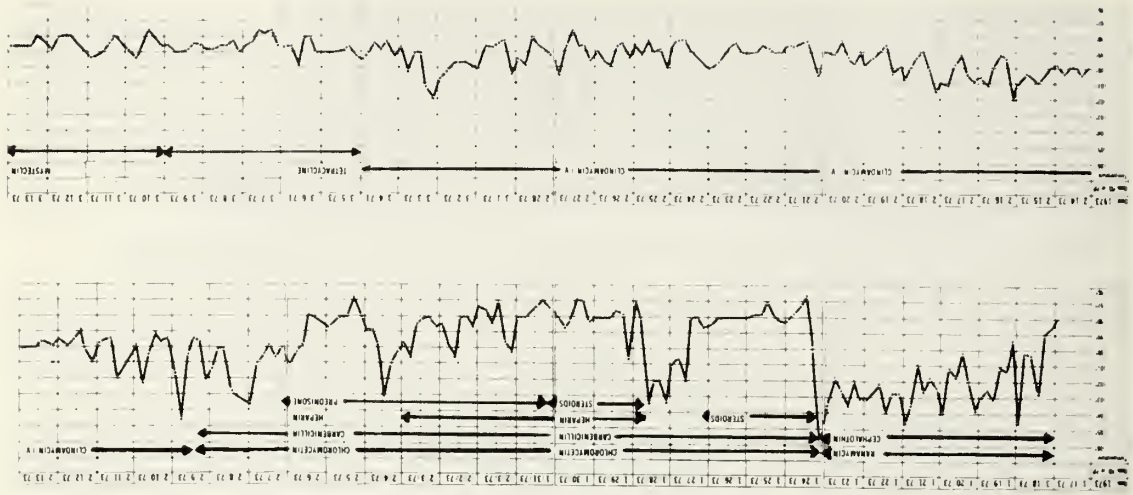


Figure 1—Graphic temperature record showing various antibiotics and other medications employed.

form of clindamycin (Cleocin*) became available and its administration was begun in dosages of 600 to 900 mg. intravenously every six hours. Other antibiotics were discontinued. The patient's temperature ranged to 101.2°F for two days, fell to low-grade levels during the ensuing week, after which it ranged mostly between 98.8°F. and 100°F. until discharge from the hospital. The alkaline phosphatase was the last test to return to normal, following the improvement in bilirubin and other enzyme levels.

Tube dilution studies of the organisms obtained on blood culture revealed a sensitivity to 1.25 micrograms per cubic centimeter of clindamycin hydrochloride hydrate. Blood cultures taken after the institution of clindamycin therapy were negative. The liver scans improved slowly. (Figure 2-B). The drug was discontinued after three and a half weeks because of a generalized maculo-papular rash which was only temporarily relieved by prednisone and chlorpheniramine. Oral tetracyline in dosage of 250 mg. every six hours was given for four days, then she was switched to mystecline because of the development of intra-oral candida infection.

A selective celiac angiogram which was performed shortly before discharge revealed, in the venous phase of the study, a definite, presumably thrombotic obstruction of the portal vein. Some neovascularity and irregular perfusion of the liver was seen and felt to be compatible with multiple abscesses in various stages of healing. There was obstruction of the distal splenic and portal veins, with collateralization via the inferior mesenteric vein and marginal veins of the large intestine. Esophageal varices were demonstrated arising from the coronary vein. Massive splenomegaly was present.

Follow-up on several occasions through March 1975 revealed no evidence of recurrent disease. An esophagogram failed to demonstrate esophageal varices.

Discussion

Most recent reports on the management of liver abscesses have stressed surgical intervention, mostly for large solitary intra-hepatic lesions; an extra-peritoneal approach under heavy antibiotic coverage is preferred.[1-3] In most series, the abscesses were secondary to extra-hepatic intra-abdominal suppuration, to infected traumatic wounds of the liver, or to infection via the bile ducts (i.e., secondary to ascending cholangitis).[1] A wide variety of bacteria have been implicated.[1-3] Bacteroides is a commonly noted offender in reported cases of liver abscess and in other sepsis of intra-abdominal origin. Because of difficulties in culturing this organism, it may be the actual offender in instances where cultures are reported as showing "no growth."[3-5]



Figure 2-A—*Tc 99mm sulfur colloid liver scan showing radiolucent defects.*



Figure 2-B—Liver scan prior to discharge showing evidence of gradual resolution of liver defects.

Futch *et al.*[6], in a report of five cases of bacteroides abscess of the liver, reported a high mortality for this condition, and advised adequate surgical drainage as offering the best hope for survival. Concomitant antibiotic therapy in his cases involved the use of chloromycetin and tetracyline as the most effective antibiotics. He stressed the associated laboratory findings of elevated alkaline phosphatase, elevated serum glutamic oxalacetic transaminase, and a low serum albumin, features also found in our case.

Only two of 61 patients with pyogenic liver abscesses reported by Joseph *et al.*[7] were due to appendicitis and secondary pylephlebitis. Such multiple intra-hepatic abscesses do not lend themselves easily to surgical drainage. Many of the lesions may be deep within the liver substance and escape detection at laparotomy. Also, contamination of the peritoneal cavity would appear inevitable during such attempts at drainage. In our reliance on conservative therapy, however, it did not appear that we were overcoming the infection with the antibiotics initially employed. The fever and liver lesions, as followed by sequential scans, did appear to respond to the intravenous administration of clindamycin, the use of which was associated with dramatic clinical improvement.

References

1. Altemeier WA, Schonwengerdt CG, and Whitely DHL: Abscesses of the liver: Surgical considerations. *Arch Surg* 101:258-266, 1970.

2. Baisford WD and Mark JBD: Surgical management of hepatic abscess. *Am J Surg* 118:317-326, 1969.

3. Ribaudo JM and Ochsner A: Intrahepatic abscesses: Amebic and pyogenic. *Am J Surg* 125:570-574, 1973.

4. Block MA, Schuman BM, Eyler WR, Truant JP, and DuSault LA: Surgery of liver abscesses: Use of newer techniques to reduce mortality. *Arch Surg* 88:602-610, 1964.

5. Truant JP: Unusual bacterial isolates obtained from a variety of clinical specimens. *Henry Ford Hosp Med Bull* 11:83-92, 1963.

6. Futch C, Zikria BA, and Neu H: Bacteroides liver abscess. *Surg* 73:59-65, 1973.

7. Joseph WL, Kahn AM, and Longmire WP: Pyogenic liver abscess. *Am J Surg* 115:63-68, 1968.

180 Somerset Street, New Brunswick

Support the Society for
Relief of Widows and Orphans
(c/o MSNJ, P.O. Box 904, Trenton 08605)

A case report of a 19-year-old boy with neurogenic bladder secondary to myelomeningocele treated with transurethral resection of the bladder neck is reported. The patient is now able to void well with a good stream and control and effectively empties his bladder with no residual. The pertinent literature is reviewed.

Transurethral Resection of the Bladder Neck in Neurogenic Bladder Secondary to Myelomeningocele*

J. S. Navarro, M.D., S. D. Madduri, M.D., J. J. Iglesias, M.D., and J. J. Seebode, M.D., Newark

Urinary incontinence is the most obvious and troublesome outward symptom of a malfunctioning of the urinary tract in cases of myelomeningocele. Supravesical urinary diversion with intestinal conduits was used extensively in children with disabling incontinence due to myelomeningocele, to salvage their upper tracts. Transurethral resection of the bladder neck seems to be an unphysiologic approach but may be worthwhile attempting in some selected cases before resorting to more radical procedures.

The following case report describes a patient with a myelomeningocele with urinary incontinence who was treated successfully with transurethral resection of the bladder neck.

Case Report

A 19-year-old male was hospitalized for evaluation and treatment of urinary incontinence which was present since birth. He was born with a myelomeningocele which was repaired when he was three days old. The patient had multiple urological evaluations of his incontinence and was treated with an indwelling catheter for months. Urinary diversion (ileal conduit) was suggested but the patient's parents refused the operation.

Physical examination at the time of admission revealed a myelomeningocele repair scar, sacral anesthesia, and patulous anus. Motor power was normal in the lower extremities; hyper-reflexia was barely appreciable. The patient was ambulatory. An intravenous pyelogram disclosed a normal upper urinary tract but the cystographic phase disclosed a markedly trabeculated bladder with diverticulae. A cystometrogram showed 200 cc. capacity and a voiding pressure of 60 mm. Hg. Endoscopic examination revealed a trabeculated bladder with a rigid and elevated bladder neck with diverticulae in the prostatic urethra. Residual urine was about 100 cc. The patient had a transurethral resection of the bladder neck with an uneventful recovery. After removal of the catheter, the patient was able to void with a good stream and control. He had the surgery two years prior to this report and, to date, he is continent of urine, voids with a good stream, and empties his bladder with no residual urine.

Discussion

The incidence of spina bifida is approximately two per 1,000 live births.[4] Before 1960, 70 percent of infants with spina bifida, meningomyelocele, and hydrocephalus died during infancy. Since then, surgical techniques to repair meningomyelocele and to reduce or prevent hydrocephalus with shunts have changed the prognosis. Currently, more than 70 percent of children with these lesions survive infancy and consequently present multiple orthopedic, neurosurgical, psychological, and urological problems.[5]

The incidence of incontinence in cases of myelomeningocele has been recorded as 65 to 95 percent.[6,7] Detrusor activity was present in 89 percent of the children evaluated. Upper tract deterioration was present in 41 to 44 percent of the children with incontinence. Conservative management with credé expression or urethral catheter drainage did not reduce upper tract changes and was not always successful in controlling the incontinence. Intermittent catheterization, when possible, has been shown very effective.

*From the Department of Surgery, Section on Urology, CMDNJ, New Jersey Medical School, Newark, where Dr. Navarro is a resident in urology, Dr. Madduri is Instructor in Surgery, Dr. Iglesias is Professor of Surgery and Dr. Seebode is Professor and Chief, Section on Urology.

Supravesical urinary diversion with intestinal conduits was recognized as a well-accepted, therapeutic modality to save these children from upper tract deteriorization. Cass, *et al.*[1] followed 92 children with myelomeningocele, 88 percent of whom were incontinent. Sixty-four of the 81 incontinent (79 percent) had urinary diversion with satisfactory results. Stark[8] reported pudendal neurectomy in myelomeningocele patients with an active detrusor and inefficient bladder emptying secondary to failure of the striated external sphincter to relax. In 10 out of 12 such patients, bilateral pudendal neurectomy was successful in relieving bladder outflow obstruction.

Transurethral resection may be an unphysiologic approach to the treatment of neurogenic bladder, but occasional beneficial effects may warrant an attempt to weaken or shorten the posterior urethra in carefully selected patients. Transurethral resection in neurogenic bladder is not a new procedure; it was first carried out at the Mayo Clinic in 1930.

The person who is unable to empty his bladder, but whose cystometric evaluation reveals sufficient vesical capacity and muscular ability to store and evacuate urine effectively, is the type of patient in whom resection of the vesicourethral outlet may be considered.

Recent articles concerning the role of external urethral sphincter in neurogenic bladder secondary to myelomeningocele give little importance to the bladder neck. It is known that a relatively normal sphincter may be too strong for a weak detrusor and the probability of an obstruction at the level of the bladder neck can increase the resistance even more in these patients. Transurethral resection of the bladder neck is a procedure worth attempting before resorting to more radical procedures such as urinary diversion, as this case report exemplifies.

References

1. Cass AS, Spence BR: Urinary incontinence in myelomeningocele. *J Urol* 110:136, 1973.

2. Cass AS: In *Results in Urologic Management in Modern Management of Myelomeningocele.* Edited by WH Bunch *et al.* St. Louis, Warren Y. Green, Inc., 1972.

3. Cass AS: Urinary tract complications and management in myelomeningocele. *Rev Mexicana de Urol* 31:203, 1971.

4. Hide DW, Semple C: Coordinated care of the child with spina bifida. *Lancet* 2:603, 1970.

5. Corber J: Results of treatment of myelomeningocele: An analysis of 524 unselected cases with special reference to possible selection for treatment. *Develop Med Child Neurol* 12:279, 1971.

6. Winemiller JH, Lehman TH: An 8-year-old urological experience in the multidisciplinary approach to the care of the meningomyelocele patient. *J Urol* 110:138, 1973.

7. Rose JF: What happens to the child with myelomeningocele. *J Urol* 87:625, 1962.

8. Stark G: Pudendal neurectomy in management of neurogenic bladder in myelomeningocele. *Arch Dis Child* 44:698, 1969.

65 Bergen Street, Newark

PATRONIZE OUR ADVERTISERS

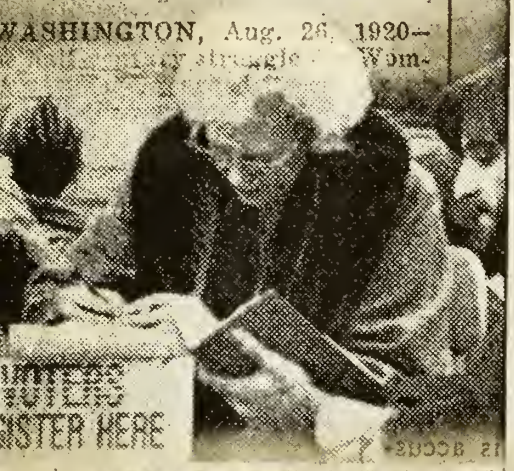
They Merit Your Support

OLBY PROCLAIMS WOMAN SUFFRAGE

igns Certificate of Ratification at His Home Without Women Witnesses.

ILITANTS VEXED AT PRIVACY.

Wanted Movies of Ceremony, But Both Factions Are



WASHINGTON, Aug. 26, 1920—

Social Security Bill Is Signed; Gives Pensions to Aged, Job

Roosevelt Approves Message Intended to Benefit 30,0 Persons When States Adopt Cooperating Laws–He the Measure 'Cornerstone' of His Economic Progra

WASHINGTON, Aug. 14 The Social Security Bill, p a broad program of unemp insurance and old age p and counted upon to bene 20,000,000 persons, became day when it was signed b dent Roosevelt in the pre those chiefly responsible ting it through Co

Mr. Roosevelt cal "the cornerstone which is being me s comple ri to

SENATE APPROVES 18-YEAR OLD VOTE IN ALL ELECTIONS

Amendment to Constitution is Sent to House, Where Passage is Expected

WASHINGTON, March 10, 1971—The Senate approved today, 94 to 0, and sent to

TRUMAN CLOSES TED NATIONS CONFEREN TH PLEA TO TRANSLATE CHARTER INTO DEEDS

NEW WORLD HOPE

President Hails 'Great Instrument of Peace,' Insists It Be Used

HISTORIC LANDMARK

Meeting Gives Standing Ovation as Executive Pictures Peace Gain

"If we fail to use it," he declared to the solemn final meeting of the delegates, 'we shall betray all of those who have died in order that we might meet here in freedom and safety to create it.'

"If we seek to use it selfishly—for the advantage of any one nation or any small group of nations—we shall be equally guilty of that betrayal."

Fervent Interpolation

The President, speaking in the auditorium of the War Memorial Opera House, built in memory of sons of the Golden Gate city who gave their lives in the first World War, in which he himself served, seemed to give unconscious expression to the solemn feeling of the occasion when, at the outset of his speech, he interpolated the words, half a hope, half a prayer:

"Oh, what a great day this can be in history!"

Just before the plenary session the President accompanied the

JUL SIGNI the Draf Ends No

WASHINGTON, Jan. 27, 1973—"With the signing of the peace agreement in Paris today, and after receiving a report from the Secretary of the Army that



PATIENT PACKAGE INSERTS: A CONCEPT WHOSE TIME HAS COME?

The consumer's right to know is an irreversible and desirable trend of the Seventies. It extends, and properly, to a patient's right to know more about his or her prescription medications. One way, gaining favor, is through patient package inserts. Wisely-prepared and properly distributed when medically indicated, they could markedly improve patient knowledge and drug therapy—laudable goals by anyone's standards.

The PMA endorses these goals and will work with government, the health professions and consumers to achieve them.

The Advantages

The concept holds promise of benefits: better patient understanding of the product prescribed, better adherence to the treatment plan, and more awareness of possible side reactions.

Every doctor has had patients who fail to finish antibiotic regimens because they feel better. Some patients assume that if one tranquilizer or analgesic is good, two may be twice as good. Still others fail to report dizziness while on antihypertensive therapy —and so on.

Problems like these might arise less often if the patient received written information in addition to verbal instructions. Some studies suggest that patients are more receptive to such materials, and they more often understand the verbal instructions and follow them, when inserts are used.

The Disadvantages

There are also some potential problems. Obviously, the inserts must be clearly phrased, without extraneous or complex detail. How much information is enough? How can it be kept current? Should all patients receive the same information? Should inserts be included with all drugs? Should only potential problems be listed or are patients better off with a "fair balance" presentation that describes usefulness as well as drawbacks?

These and similar questions require answers, since model inserts have yet to be properly developed and tested. Despite the need for these studies, the FDA is proceeding prematurely with inserts on selected products. We think the Congress is the only place where the matter can be given the proper legal status and direction, particularly since it represents a conceptual change in the legal, medical and social framework of the nation's prescription drug information system.

The Solution

The PMA believes that carefully-devised pilot studies of various kinds of inserts are needed. They should be developed and implemented with full participation by doctors, pharmacists, consumers, communications experts and the drug industry. Such studies will provide reliable pathways to follow, so that inserts will be useful aids to medical practice.

And particularly we think that you should be closely involved in this debate and in these studies and decisions. Otherwise, people with less experience and qualifications may control the purposes, content and use of a tool with considerable promise for improved patient care. It could make a difference in your practice tomorrow, and more importantly, in the health of your patients.

PMA
THE PHARMACEUTICAL MANUFACTURERS ASSOCIATION
1155 FIFTEENTH ST., N. W. WASHINGTON, D. C. 20005

This case report describes a seven-year-old boy with mucocutaneous lymph node syndrome (MLNS) associated with a vesicular eruption in the antecubital fossa and pubic area. This finding may represent a new facet of MLNS or an isolated finding. The differential diagnosis and relationship of this syndrome to other diseases is discussed.

Mucocutaneous Lymph Node Syndrome with Vesicles

Paul M. Stadelman, M.D.,
Richard M. Jaouen, M.D.,
Stephen F. Wang, M.D., Morristown*

Mucocutaneous lymph node syndrome (MLNS), an acute, febrile illness of young children, first was described in Japan by Kawasaki.[1] Since 1974, cases have been reported sporadically in several areas of the United States.[2-6] The following signs and symptoms are characteristic: fever, conjunctivitis, erythematous rash, cervical lymphadenopathy, erythema of lips and oropharynx, strawberry tongue and edema of the hands and feet followed by desquamation.[1] Our report concerns a child with MLNS associated with a vesicular eruption not previously described in this condition.

Case Report

A previously healthy seven-year-old male of Pakistani parentage was hospitalized in April, 1976 with fever, sore throat, and a painful, swollen neck.

The patient was well until five days prior to admission, when he awakened with a sore throat, fever of 39° C and tenderness and swelling of the left cervical region. He was seen by a physician who obtained a throat culture and prescribed erythromycin and application of hot sponges to the inflamed node. Two days prior to admission he appeared more ill and a morbilliform rash was noted on his trunk and extremities. His medication was changed from erythromycin to tetracycline. Because of vomiting and increased difficulty in swallowing over the next two days, hospitalization was advised. The patient was noted to be a dark-skinned, well-nourished boy with an apparent torticollis to the left. He was acutely ill and uncomfortable with temperature of 39.3°C; regular pulse 132/minute, blood pressure 140/50 and weight 58 pounds.

A pruritic generalized morbilliform rash was noted. Conjunctivitis, a red tongue with a "strawberry" appearance, and dry, erythematous, cracked lips were observed. The throat and tonsils were erythematous, but no exudate was present. There was bilateral cervical lymph node enlargement and tenderness, with a visible three to four cm mass below the angle of the left jaw. The heart and lungs were normal. The liver edge was palpable below the right costal border and slightly tender. A polymorphous macular rash was seen in the pubic area.

All medications were discontinued and the following laboratory results were obtained: CBC: Hemoglobin 12.0 Gm; Hematocrit 35.3%, WBC 9,700 with polys 93%; lymphs 6%, eosinophiles 1; Urinalysis: albumin 1+, acetone 1+ and few bacteria; Blood chemistry: CL = 94, CO_2 = 28.8, K = 4.2, Na = 130, BUN = 10, glucose = 128, ESR = 116; Throat culture before and upon admission revealed normal flora. A *Monospot test* was negative and the *chest x-ray* normal.

The morning after admission, the patient developed a *vesicular eruption* in the skin creases of the antecubital fossa and pubic region. On the third hospital day, both feet became quite painful; with erythema of the soles and swelling of both ankles was observed. Laboratory results at this time: Blood chemistry: total protein = 6.3 Gm; albumin = 3.5, alkaline phosphatase = 325 IU; CPK = 200 IU; LDH = 230 IU and SGOT = 115 IU; febrile agglutinins were negative; stool for ova and parasites — none seen; HAA (Australian Antigen) was negative; C-reactive protein = 8+; repeat ESR = 121; heterophile antibody test was negative; blood culture revealed streptococcus morbillorum (in one tube out of two after 3 days' incubation). This was thought to be a contaminant. The immunoglobulins were normal, and the serum complement level was elevated to 270 mg/dl (N = 123 – 177 mg/dl. Protein electrophoresis revealed albumin of 2.6 Gm/dl (N = 3.1 – 5.0) and Alpha 1 globulin of 1.29 Gm/dl (N = 0.4 – 1.0).

By the fourth hospital day, the morbilliform rash disappeared and desquamation of the skin over the scrotum, penis and pubic area was noted. Total protein was found to be 6.0 Gm, albumin slighted decreased to 3.1 and SGOT only mildly elevated to 100 IU.

On the eighth hospital day, the palmar surface of the patient's hands, as well as the periungual areas of the thumbs, began desquamating. A Grade II/VI apical systolic murmur was noted at this time; but an EKG was normal. The clinical status of the patient was much improved at this point.

*From the Department of Pediatrics at Morristown Memorial Hospital. Dr. Wang is Chairman of the department. Dr. Jaouen has since transferred to St. Joseph's Hospital in Denver, Colorado, and Dr. Stadelman is at Long Beach Veterans Administration Hospital, Long Beach, California.

On the eleventh hospital day, the patient's feet began to show desquamation of both surfaces. He continued to show clinical improvement over the next week with desquamation of the hands and feet as the only remaining physical finding. On the 17th day of the illness a biopsy of a normal size, non-tender left cervical lymph node was performed. Aerobic, anaerobic, acid fast, and fungus were sterile. Histologically, the lymph node was normal. Electron microscopy for rickettsial bodies revealed no organisms. On the eighteenth day of illness a repeat EKG, echocardiogram, and toxoplasmosis complement fixation test were normal.

The patient was discharged on the 20th hospital day in good condition with a final diagnosis of mucocutaneous lymph node syndrome with vesicles.

Discussion

Mucocutaneous lymph node syndrome (MLNS) was first reported by Kawasaki in 1967. Since that time, over 7,000 cases have been reported throughout Japan where it represents a distinct clinical entity.[1]

Since 1974, the number of cases recognized in the United States has increased steadily with case reports emanating from Hawaii, Tennessee, New Jersey, New York, Colorado, and Arizona.[2-6]

MLNS represents an acute, febrile illness in children between the ages of two months and nine years; males are affected predominantly. The fever is usually 101° to 104°F, lasts up to two weeks and does not respond to antibiotics. Severe, bilateral conjunctivitis, acute nonpurulent swelling of cervical lymph nodes, polymorphous erythematous rash, marked dryness, redness, and fissuring of the lips, a "strawberry tongue," and marked erythema of the palms and soles with indurative edema and membranous desquamation of the peripheral extremities are noted.[1,7]

Leukocytosis, rapid sedimentation rate, positive C-reactive protein, slight decrease in hemoglobin, increase in Alpha 2 globulins and elevated IgM usually are found in this disease.[1]

Less frequent clinical findings reported in MLNS include arthralgias, diarrhea, carditis, aseptic meningitis, and abnormal liver function tests.[1]

In our case, virtually all the principal clinical and laboratory findings of mucocutaneous lymph node syndrome were demonstrated with the additional finding of a vesicular eruption. The previously reported cases make no mention of a vesicular eruption which may appear in patients with Stevens-Johnson Syndrome. Although he did have a morbilliform rash with vesicles, we feel this patient did not have this condition. Our patient did not have the typical pseudomembranous and purulent conjunctivitis, nor the ulcerative and pseudomembranous stomatitis seen in Stevens-Johnson Syndrome.[8]

Recent evidence suggests that MLNS may be related to infantile periarteritis nodosa (IPN) since clinical and pathological findings of IPN with severe aneurysmal involvement and fatal MLNS are indistinguishable.[9,10] Since our patient had repeated electrocardiograms and an echocardiogram without any evidence of cardiac involvement, we do not feel the patient had IPN.

The clinical manifestations and laboratory findings of MLNS may also be seen in patients with leptospirosis.[11]. Our patient had no reported contact with any host species (dog, rat, cattle, and so on). The cervical lymph node biopsy in this case showed normal lymphoid tissue without any evidence of reticulum cell proliferation or perivascular infiltration as described by Goldsmith[6]; rickettsial bodies as described by Hamashima,[12] were not present. The lymph node which was biopsied during the convalescent phase (17th day) of the illness was barely palpable in the cervical area.

The vesicular eruption which was principally in the pubic area and antecubital folds in our patient may represent a new facet of mucocutaneous lymph node syndrome. Pediatric clinicians must be aware of the possible variability of the presentation of MLNS and its similarities to Stevens-Johnson Syndrome, infantile periarteritis nodosa and leptospirosis. The finding of vesicles must be evaluated further in subsequent cases to determine if it actually represents a specific facet of this disease in the United States or an isolated finding.

References

1. Kawasaki T, Kosaki F, *et al:* A new infantile acute febrile mucocutaneous lymph node syndrome (MLNS) prevailing in Japan. *Pediatr* 54:271, 1974.

2. Brown J, Billmeier G, Cox F, *et al:* Mucocutaneous lymph node syndrome in the continental United States. *J Pediatr* 88:81, 1976.

3. Melish M, Hicks R, Larson E: Mucocutaneous lymph node syndrome in the United States. *Am J Dis Child* 130: 599, 1976.

4. Lauer B, Bruhn F, Todd J, Todd W: Mucocutaneous lymph node syndrome in Denver. *Am J Dis Child* 130:610, 1976.

5. John TJ, DeBenedetti C, Zee M: Mucocutaneous lymph node syndrome in Arizona. *Am J Dis Child* 130:613, 1976.

6. Goldsmith RW, Gribetz D, Strauss L: Mucocutaneous lymph node syndrome in the continental United States. *Pediatr* 57:431, 1976.

7. Fetterman GH and Hashida K: Mucocutaneous lymph node syndrome: A disease widespread in Japan which demands our attention. *Pediatr* 54:268, 1974.

8. Rook A, Wilkinson DS, Ebling F: *Textbook of Dermatology,* 2nd edition. Oxford, England, Blackwell, 1972, pages 889-893.

9. Landing BH, Larson EJ: Are infantile periarteritis nodosa with coronary artery involvement and fatal mucocutaneous lymph node syndrome the same? Comparison of 20 patients from North America with patients from Hawaii and Japan. *Pediatri* 59:651, 1977.

10. Reimold Ekkehard, Weinberg Arthur: Polyarteritis in children. *Am J Dis Child* 130:534, 1976.

11. Wong Michael, Kaplan Sheldon, *et al:* Leptospirosis: A childhood disease. *J Pediatr* 90:532, 1977.

12. Hamashima Y, Kishi K, Tasaka K: Rickettsia-like bodies in infantile acute febrile mucocutaneous lymph node syndrome. *Lancet* II:42, 1973.

100 Madison Avenue, Morristown

Pediatric Briefs*

The Evolution and Resolution of Otitis Media in Infants. Groothuis, J.R. *et al.: Abstracts,* Ambulatory Pediatric Association, 1977, p. 41.

Infants who will not develop otitis media have normal tympanograms. Infants who will develop otitis media within the next month have abnormal tympanograms consistent with effusion. When otitis media effusions persist for several months recurrent attacks are common.

Comment: Tympanometry is a powerful tool for following patients with otitis media and, as in the above study, for predicting patients who subsequently will develop otitis media, as well as those who may have recurrent attacks. Our current understanding of middle ear dynamics will be enhanced by this tool. Other recent data (APS-SPR abstracts, 1977) indicate that clinical otoscopy is unreliable and tympanometry adds immeasurably to the ability to assess the status of the middle ear.

*Excerpts from CMDNJ Rutgers Medical School *Pediatric Newsletter* (Vol. 1, No. 8, June 1977), Richard H. Rapkin, M.D., Editor. Dr. Rapkin has given *The Journal* permission to reprint this material from time to time.

"The buck starts here."

That's the name of a new Blue Shield film presentation which concerns cost containment and what can be done about it. It features Dr. James H. Sammons, Dr. Russell B. Roth and others you will recognize. It's 20 minutes long.

This film is available *free* to your County Medical Society and other physicians' groups through our Professional Relations Department. One of our professional relations representatives will be glad to show it and answer questions at a convenient date.

Just call (201) 456-3250 to schedule a presentation.



Blue Shield
of New Jersey

There is no substitute



yours...

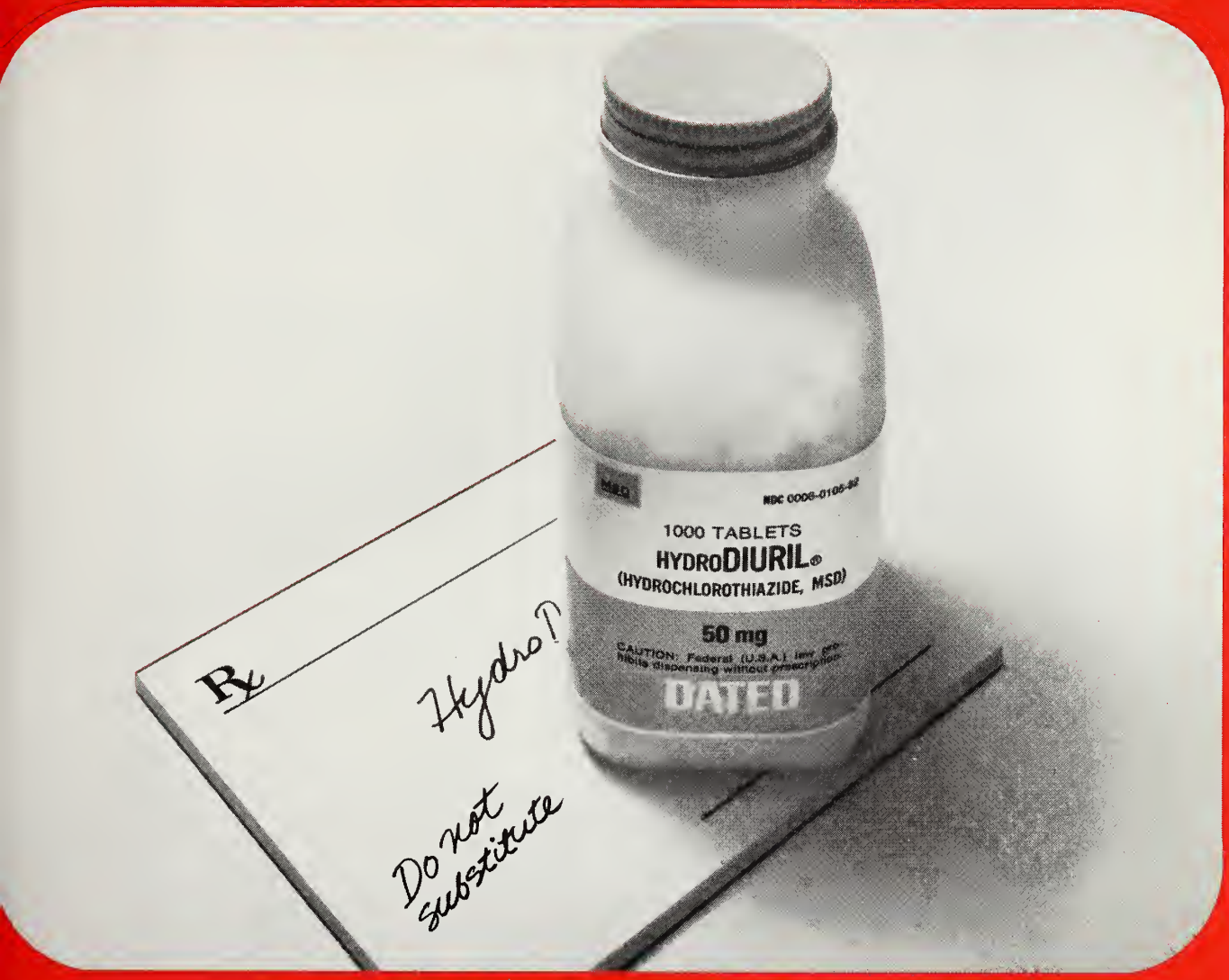
Contraindications: Anuria; hypersensitivity to this or other sulfonamide-derived drugs.

Warnings: Use with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. Cumulative effects may develop in patients with impaired renal function. Use with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma. May add to or potentiate action of other antihypertensive drugs; potentiation occurs with ganglionic or peripheral adrenergic blocking drugs. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possibility of exacerbation or activation of systemic lupus erythematosus has been reported. Lithium generally should not be given with diuretics because they reduce its renal clearance and add a high risk of lithium toxicity. Read circulars for lithium preparations before use of such concomitant therapy. *Use in Pregnancy:* Thiazides cross placental barrier and appear in cord blood; in pregnancy, weigh anticipated benefit against possible hazards to fetus, including fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions that have occurred in adults. *Nursing Mothers:* Thiazides appear in breast milk; if use of drug is deemed essential, patient should stop nursing.

Precautions: Perform periodic determination of serum electrolytes to detect possible electrolyte imbalance. Observe all patients for clinical signs of fluid or electrolyte imbalance, namely, hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs, irrespective of cause, are dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting. Hypokalemia may develop, especially with brisk diuresis, in severe cirrhosis, with concomitant corticosteroid or ACTH therapy, or with inadequate oral electrolyte intake. Hypokalemia can sensitize or exaggerate response of heart to toxic effects of digitalis (e.g., increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content. Any chloride deficit is generally mild and usually does not require specific treatment except under extraordinary circumstances (as in liver disease or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt except in rare instances when the hyponatremia is life threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients. Insulin requirements in diabetic patients may be increased, decreased, or unchanged; latent diabetes mellitus may become manifest. Thiazides may increase responsiveness to tubocurarine. Antihypertensive effects of the drug may be enhanced in post-sympathectomy patients. May decrease arterial responsiveness to norepinephrine; this diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use. If progressive renal im-

for experience—



or ours.

pairment becomes evident, consider withholding or discontinuing diuretic therapy. Thiazides may decrease serum PBI levels without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged therapy; thiazides should be discontinued before testing for parathyroid function.

Adverse Reactions: *Gastrointestinal System*—Anorexia; gastric irritation; nausea; vomiting; cramping; diarrhea; constipation; jaundice (intrahepatic cholestatic jaundice); pancreatitis; sialadenitis. *Central Nervous System*—Dizziness; vertigo; paresthesias; headache; xanthopsia. *Hematologic*—Leukopenia; agranulocytosis; thrombocytopenia; aplastic anemia. *Cardiovascular*—Orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics). *Hypersensitivity*—Purpura; photosensitivity; rash; urticaria; necrotizing angiitis (vasculitis) (cutaneous vasculitis); fever; respiratory distress including pneumonitis; anaphylactic reactions. *Other*—Hyperglycemia; glycosuria; hyperuricemia; muscle spasm; weakness; restlessness; transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

Note: When used with other antihypertensive drugs, careful observations for changes in blood pressure must be made, especially during initial therapy. Dosage of other antihypertensive agents must be reduced by at least 50 percent as soon as this drug is added to the regimen. As blood pressure falls under the potentiating effect of this agent, further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary.

How Supplied: Tablets containing 25 mg hydrochlorothiazide each in bottles of 100 and 1000 and single-unit packages of 100; Tablets containing 50 mg hydrochlorothiazide each in bottles of 100, 1000, and 5000 and single-unit packages of 100; Tablets containing 100 mg hydrochlorothiazide each in bottles of 100.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

J6HD04(528)

MSD
MERCK SHARP & DOHME

In hypertension

TABLETS: 25 mg, 50 mg, and 100 mg

HydroDIURIL®

(HYDROCHLOROTHIAZIDE|MSD)

Special Article

The Sanctity of Life*

C. Everett Koop, M.D., Philadelphia

The subject which I wish to address is not one that is usually the topic for a worship service although I have made it so in Protestant churches and have even used it as the homily when I have been privileged to do this at a Roman Catholic mass. I am here primarily because of a concern that our concept of the sanctity of human life constantly is being eroded and I must confess that I can see prophetically a progression of thinking in this country from liberalized abortion to infanticide to passive euthanasia to active euthanasia, indeed to the very beginnings of the political climate that led to Auschwitz, Dachau, and Belsen.

The second reason that I am here is to counteract the oft-spoken falsehood that abortion is a Roman Catholic issue.

The third reason I am here is to present to you a background of information that I believe you should have not only as people with a religious interest but as thinking Americans. A decision concerning abortion or infanticide may never be yours to make, but you all will face death in your patients and most of you personally will face a terminal illness. Society's attitude toward the sanctity of human life well may affect the manner and immediate cause of your death, and even may bring on a premature death because of a number of social, economic, and political factors, the mere mention of which in 1977 may seem to you to be very farfetched.

The sanctity of human life begins, as I see it, with the various covenants between God and man. The first of these was after Abel had been killed by Cain and Cain was cursed by God. God was very careful to point out that there was to be no blood feud and if there were, His punishment would take place sevenfold. After the flood, God spoke to Noah and told him that whoever sheds man's blood, by man shall that individual's blood be shed. Many believe that was the mandate from God for capital punishment. After that came the Ten Commandments, and one of those was, "Thou shalt not kill." It is very clear from the context that the commandment, "Thou shalt not kill," had nothing to do with capital punishment or with manslaughter, or with war, but it had to do with murder. All of these covenants, if you read them carefully, were based upon one thing; man's uniqueness in having been created in the image of God.

It soon was obvious in Judaism that life was precious to God. Christian doctrine is based upon Judaism, plus the teachings of Jesus and the apostles as recorded in the New Testament. Jesus claimed that His teachings were in harmony with the teachings of the Old Testament. He said further that the moral law was immutable and unchanging. He showed how learned men, such as the Pharisees, could misinterpret the law. In the final analysis, as a Christian, I believe in the sanctity of life because I am God's by creation and also God's by redemption through Jesus Christ and His sacrifice on the cross in my behalf.

The liberalization of abortion laws has brought the whole problem of the sanctity of life into focus. My reasons against abortion are logical as well as theological.

Logical and Theological Reasons

It is impossible for anyone to say when a developing fetus or embryo or baby becomes viable, that is, has the ability to exist on its own. The logical approach is to go back to the sperm and the egg. A sperm has twenty-three chromosomes; even though it is alive and can fertilize an egg, it can never make another sperm. An egg also has twenty-three chromosomes and it can never make another egg. So, we have eggs that cannot reproduce and we

*Based on remarks at the Annual Prayer Breakfast, 211th Annual Meeting, MSNJ, May 15, 1977, Atlantic City. Dr. Koop is Surgical Associate, Children's Hospital of Philadelphia.

have sperm that cannot reproduce unless they get together. Once there is union of sperm and egg, and the twenty-three chromosomes of each are brought together into one cell that has forty-six chromosomes, we have an entirely different story. That one cell with its forty-six chromosomes has all of the DNA (desoxyribonucleic acid), the whole genetic code, that will, if not interrupted, make a human being just like you, with the potential for God-consciousness.

I do not know anyone among my medical confreres, no matter how strongly he favors abortion, who would kill a newborn baby at the moment of birth. He might let him starve to death, but he would not kill him. My question to my pro-abortion friend who will not kill a newborn baby is, "Would you kill this infant a minute before he was born, or a minute before that, or a minute before that, or a minute before that?" You see what I am getting at. At what minute can one consider life to be worthless and the next minute consider that same life to be precious? So much for logic.

Although there are ample reasons for the areligious individual to be frightened about the implications of the Supreme Court's decision on abortion, I believe that most anti-abortion individuals who oppose abortion do not lean heavily upon religious convictions in coming to their position. The basis of belief may be far away in time and vague in detail but nevertheless has built into the conscience a judgment concerning right and wrong. Although I am not a theologian, I feel you should know how I have come theologically to the position I now hold. Two of the Christian doctrines which I cherish most are the sovereignty of God and the infallibility of Scripture. By sovereignty I mean that even though God has apparently given man free will, that free will is nevertheless within the sovereignty of God. How could it be otherwise if God is God? God is accountable to no one for His decisions. Even the breath that men use to blaspheme God is a gift from God Himself. As I read the Scriptures, they seem to say from cover to cover that life is precious to God. I can find no place in *The Bible* which clearly states when a fetus might be viable but there are some passages which are extremely significant. In the 139th Psalm, David, writing about himself, says:

"Yea, the darkness hideth not from thee; but the night shineth as the day: the darkness and the light are both alike to thee. For thou hast possessed my inner parts: thou has covered me in my mother's womb. I will praise thee; for I am fearfully and wonderfully made: marvellous are thy works; and that my soul knoweth right well. My substance was not hid from thee, when I was made in secret, and curiously wrought in the lowest parts of the earth. Thine eyes did see my substance, yet being unperfect; and in thy book all my members were written, which in continuance were fashioned, when as yet there was none of them."

I also am impressed that when *The Bible* speaks of man in the womb, it also speaks of the whole sweep of the creation and of God's sovereignty from then until the end of time. In the 44th chapter of Isaiah we read:

"Yet now hear, O Jacob my servant; and Israel, whom I have chosen: Thus saith the Lord that made thee, and formed thee from the womb, which will help thee."

And then the prophet goes on to quote Jehovah in reference to the creation, the pouring out of His spirit, His blessing upon Israel, the forgiveness of their transgressions, and then he goes on to say:

"Thus saith the Lord, thy redeemer, and he who formed thee from the womb, I am the Lord that maketh all things; that stretcheth forth the heavens alone; that spreadeth abroad the earth by myself."

When God called Jeremiah to be a prophet, He said this:

"Before I formed thee'in the belly I knew thee; before thou camest forth out of the womb, I sanctified thee. . ."

I believe this refutes any question about a later viability of the fetus and it certainly supports the New Testament doctrine that God knew us from before the foundation of the world. Now many people will agree with these passages, but they will say, "What about the deformed baby: Don't tell me you mean the same thing about a baby who was born with some kind of a defect!" Well, God has an answer to that. You will remember that when God called Moses to serve Him in Egypt, He met him at the burning bush and He said that He wanted him to go and speak to Pharaoh and after that, He would have Pharaoh let His people, Israel, go. Moses

did not like that idea at all, and he protested to the Lord:

"I am not eloquent, neither heretofore nor since Thou has spoken unto Thy servant, but I am slow of speech and of a slow tongue."

God answered Moses:

"Who hath made man's mouth or who maketh the dumb or the deaf or the seeing or the blind? Have not I, saith the Lord?"

So, it seems to me that whether you like it or not, God makes what we call the perfect and the imperfect. This is a hard doctrine to accept but I think one has to agree that if God is God, if God is sovereign, then He is not able to make a mistake.

In the decade beginning 1968 a number of forces were at work throughout the world but especially in the United States in reference to the problems of abortion. There was a confluence of women's liberation, of sexual freedom, of a concern for ecology, population, and pollution. Tremendous forces inimical to the well-being of the human embryo were set in motion. But the quality of life ethic gained respectability at the expense of human life itself in circles which were impeccable both socially and academically. As medical indications for abortion evaporated, doctors increasingly used as justification for abortion very shaky tenets concerning the mental health of the mother-to-be. We, as the public, were subjected to endlessly repeated undocumented statements until they acquired the ring of truth, although they were acknowledged subsequently to be untrue. The public was purposely and purposefully misled. We were told that thousands of women were dying each year at the hands of criminal abortionists. Some said 10,000 a year, some said 5,000. The facts from the United States Public Health Service showed that the deaths from all abortions legal and illegal never exceeded 190 per year. As my friend Joe Stanton in Boston says, "Inflation hit the abortion statistics before it hit the grocer's shelf."

In 1959, in a declaration of human rights, the United Nations passed the following resolution:

"The child, by reason of its physical and mental immaturity, needs special safeguards and care, including appropriate legal protection before as well as after birth."

In 1973, the Supreme Court of the United States (Roe v. Wade and Doe v. Bolton) announced essentially that a new personal liberty existed in the Constitution—the liberty of a woman to procure the termination of her pregnancy, at any time in its course, on demand. It is interesting that the Supreme Court was not sure in its decision where the Constitution had provided this right for a woman but the Supreme Court was very clear that the Constitution did not mention it explicitly. In spite of the fact that the Court was extremely vague as to this provision in the Constitution, the Court was not the least bit unsure that it had the power to proclaim a specific constitutional mandate. It propounded a new doctrine of human life. It rendered invalid the regulation of abortion in every state of the union. Some of this legislation went back to the mid-19th century. Other legislation which was overthrown was recent and was an indication of the concern of lawmakers in this country for the need for protection of the fetus. Some of the legislation previously valid had been conformed by popular referenda, as for example, in the states of Michigan and North Dakota.

It was hoped that the moral outrage of so many Americans over the destruction of a million and a half to two million unborn babies a year might have been the stimulus for the Supreme Court to back off of its 1973 extreme position. They did not do this, however, and in a number of decisions in 1976 they confirmed their stand and continued the wanton, callous disregard for the rights of an unborn baby. Subsequent Supreme Court decisions indicate that hospitals that do not wish to perform abortions must perform abortions. The consent of the husband of a woman who wants an abortion is not needed. Parental consent for a minor child to have an abortion was eliminated and finally it was promulgated that a physician need not exercise the same care of the fetus in a procedure where the intent was abortion as in a procedure where the intent was the delivery of a live baby.

Some forces have been pushed into bigotry by the liberals, who, claiming that the abortion issue is a Roman Catholic issue, have made many anti-Catholic Protestants into unthinking pro-abortionists. Harold O. J. Brown has this to say:

"The opinion that opposition to abortion stems chiefly from Roman Catholic sources remains widely held, although it is contrary to fact. The overwhelming consensus of the spiritual leaders of Protestantism, from the Reformation to the present, is clearly anti-abortion. There is very little doubt among biblically oriented Protestants that abortion is an attack on the image of God in the developing child and is a great evil."

Sadly, most of the main line denominations with the notable exception of the Missouri Synod Lutherans and the Southern Baptists have made pro-abortion statements illustrating their superficial theology, lack of morality, and an insensitivity to the eventual reward for their depravity.

We have been brainwashed about what is called the "abortion issue." The woman's plight (and I am sympathetic with any woman who is pregnant when she does not wish to be) is described in terms of her anguish and her agony in deciding to kill her unborn child. We are led to believe the woman is doing something noble in killing her unborn baby to spare him suffering and the misery in the terrible world we live in and enjoy so much. A few years ago her decision to abort would have been shameful, irresponsible, outstandingly selfish, and criminal. If a woman is pregnant and wants her unborn baby to be a millionaire, when she seems unable to guarantee that state for her child, the killing of her unborn child is an act of maternal devotion—death rather than privation.

In June 1973 in a commencement address at Wheaton College, I spoke against abortion which I thought of as the major issue that will determine your future and mine. I made ten predictions:

1. The law would look ridiculous.
2. Liberty would lead to license.
3. The right to die would lead to the right to kill in mercy.
4. Abortion on demand would lead to depersonalization and dehumanization.
5. There would be an enormous number of abortions.
6. There would be a change in sexual attitudes.
7. The door would be open to a number of other things in our society which we would rather not have.
8. Abortion on demand would lead to infanticide.
9. Abortions would be back in the hands of the former abortionists.
10. Unborn babies who are said to have no meaningful life would be found to have it because they would be used in medical research.

As you can readily appreciate, time has confirmed my status as a prophet. I would like to speak briefly about two of these predictions—infanticide and mercy killing.

Infanticide is being practiced in the United States today and sadly enough it is being practiced by that segment of the medical profession which has always stood in the role of advocate for children; namely, pediatricians. Duff and Campbell, pediatricians at a teaching hospital of Yale University have been in the forefront of this discussion and acknowledge that they starved to death 14 percent of the population of their newborn intensive care unit over a two-year period.**

Ten years ago that would have been reason enough for the District Attorney of New Haven to have arrested those men for manslaughter, if not murder. On the other hand, now they are the darlings of a segment of the medical profession, the darlings of the liberal press, and they brag about the way they have found to settle the problem of adversity.

A new right seems to exist, that is the right of parents and siblings to have nothing but perfect children and a perfect brother or sister.

These gentlemen and others like them on the American medical scene refer to the seemingly pointless life of a child with a congenital defect, they talk about life not worthy to be lived, they talk about meaningful humanhood, a phrase which could be the death sentence for you in days to come when someone thinks that your humanhood is less than meaningful at a time when life might be very precious to you indeed.

Duff and Campbell are not advocating the rapid death of children who would die slowly

**Duff RS, Campbell AGM: Moral and ethical dilemmas in the special care nursery. *N Engl J Med* 289:890, 1973.

anyway, they are advocating starving to death patients that I have spent my life caring for in the broader sense of rehabilitation. I know that these children grow into worthwhile citizens and effective human beings. I also believe the adversity connected with rearing these youngsters has provided meaning and purpose in the lives of their families.

We have come to the point where it is not the baby's defect which is lethal but rather the physician's decision about his worthlessness which is the lethal factor.

If Duff and Cambell can convince the medical profession and the public that the potential for such things as chronic shortness of breath, oxygen dependence, incontinence, paralysis of some portion of your body, a contracture, or a sexual handicap is a reason to kill a newborn baby, how long will it be before they shift their emphasis from that potential in a newborn baby to that existing defect in you, an adult. I suspect that there are people in this room who have difficulty in breathing at times, some who may have oxygen dependency at night, some who might be incontinent on occasion, who might have a contracture or other orthopedic defect, or who might have a sexual handicap. If we are going to kill a newborn with one of these potentials, why not kill you now if you already have one of them?

The term euthanasia means happy death. In common parlance most people consider euthanasia to be mercy killing. Today we talk about passive euthanasia which is the withholding of certain attention to the patient in a terminal illness or with a waning life as opposed to active euthanasia which is a positive action taken to terminate the life of a patient.

My concern can be expressed very simply. I think that the public is far safer in the hands of a physician who practices in the realm of trust that exists between a patient and his doctor or between the patient's family and the doctor than it would be if these things were left to jurists to decide either on the spot in the given case or by guidelines and rules set down in advance for all people.

You all know the story of Karen Quinlan. I had four patients under my care at that time who fit all of the criteria that Karen Quinlan did. If Judge Muir had ruled that Karen's plug could have been pulled, we could have pulled the plug of those four children under my care and they all would have died. Instead, they all went home rehabilitated and well.

There is much, much more that I could say but I would like to close by indicating to you that the way we are going is the way that Germany went before Hitler. At the close of World War I Germany was in a despondent state; although abortion was illegal in Germany it was widely practiced. There arose from that liberal thinking the euthanasia movement and it was not long before the mentally ill, the retarded, criminals, and defective babies were being gassed and then destroyed by cremation. Eventually, this destruction extended to patients with tuberculosis, to amputees, and to those with senility. Two-hundred sixty-seven thousand people were destroyed this way in Germany before Hitler came to power. It could never have happened if the medical profession had not been in the forefront of its advocacy. It was only a short step from this practice after Hitler came on the scene to the destruction of individuals with different political ideologies or different ethnic backgrounds. I am absolutely convinced that it would have been impossible to destroy six million Jews in Nazi Germany had it not been for the fact that the medical profession paved the way so beautifully by opting for euthanasia for people who were socially and economically disturbing to society, or if the churches had called this depravity by its right name – murder.

We don't have time to go into what can be done about this but let me just suggest to you that if we do not find alternatives to abortion and means of supporting the families who have to raise defective children, then we already have started on the slippery slide to Auschwitz and we will have no one to blame for that but ourselves.

The Supreme Court ruling on abortion is the entering wedge in the erosion of the sanctity of

human life and has to be reversed. It is unlikely that Congress will do this although there is a bare chance that the new committees and new congressional members in the current Congress may do so. If there is to be a reversal of abortion laws, it will have to be done by a constitutional convention meeting to suggest a constitutional amendment.

You cannot afford to say that this is none of your business. Every four to six months in this country we destroy a number of unborn babies equal to all of the deaths that have taken place in the nine wars in which we have been involved from the Revolution through Viet Nam—667,000.

You have to let your legislators know how you feel about these matters. You physicians have to be prepared as physicians to develop alternatives to abortion, to infanticide, to the social and economic problems which accompany aging.

These matters of life and death are social issues but they are becoming political issues; certainly they are moral and ethical issues. Above all, they are issues that those with any spiritual concern cannot avoid. We are stewards of so many things which God has put in our hands. God grant that we will not be found wanting in the management of the greatest gift, that of life itself.

Children's Hospital, Philadelphia

INFORMATION FOR READERS AND CONTRIBUTORS

The Journal, the official organ of The Medical Society of New Jersey, is published monthly under the direction of the Committee on Publication. *The Journal* is released the first week of the month, and a copy is sent to each member of the Society.

Change of Address: Notice of change of address should be sent promptly to The Medical Society of New Jersey, P.O. Box 904, Trenton, New Jersey 08605.

Communications: Members are invited to submit to *The Journal* any suggestions for the welfare of the Society, as well as comments or criticisms of material in *The Journal*. All such communications should be directed to the Editorial Office of *The Journal*. The Publication Committee reserves the right to publish, reject, edit, or abbreviate all communications submitted.

Contributions: Manuscripts (original and one copy) submitted to *The Journal* must be typewritten, *double-spaced* on letter size (about 8½ x 11 inch) paper, and forwarded to the Editorial Office at the address below. The Publication Committee expressly reserves the right to reject any contributions, whether solicited or not, and the right to abbreviate or edit such contributions in conformity with the needs and requirements of *The Journal*. Galley-proofs of manuscripts will be submitted to authors for correction of typographical errors. Rewriting or reinsertion of material changed or deleted by the editor is not permitted. Every care will be taken with the submitted material, but *The Journal* will not hold itself responsible for loss or damage to manuscripts. It is understood that material is submitted here for exclusive publication in this *Journal*.

Illustrations: Authors wishing illustrations for their articles will submit glossy prints or original drawings.

Bibliography: Format used in JAMA must be followed. References should be numbered in order of citation in the text.

Reprints: Reprints may be ordered after the author has been notified that his article has been selected for a specific issue of *JMSNJ*.

THE JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

P.O. Box 904, Trenton, New Jersey 08605

TREAT THE SYMPTOMS IN THE GERIATRIC PATIENT

APATHY • IRRITABILITY FORGETFULNESS • CONFUSION



Cerebro-Nicin® CAPSULES

A GENTLE CEREBRAL STIMULANT & VASODILATOR FOR GERIATRIC PATIENTS

Each CEREBRO-NICIN® capsule contains:

Pentylenetetrazole	100 mg.
Nicotinic Acid	100 mg.
Ascorbic Acid	100 mg.
Thiamine HCl	25 mg.
l-Glutamic Acid	50 mg.
Niacinamide	5 mg.
Riboflavin	2 mg.
Pyridoxine HCl	3 mg.

AVAILABLE: Bottles 100, 500, 1000

SIDE EFFECTS: Most persons experience a flushing and tingling sensation after taking a higher potency nicotinic acid. As a secondary reaction some will complain of nausea, sweating and abdominal cramps. The reaction is usually transient.

INDICATIONS: As a cerebral stimulant and vasodilator.

RECOMMENDED GERIATRIC DOSAGE: One capsule three times daily adjusted to the individual patient.

WARNING: Overdosage may cause muscle tremor and convulsions.

CONTRAINDICATIONS: Epilepsy or low convulsive threshold.

CAUTION: Federal law prohibits dispensing without prescription. Keep out of reach of children.

Write for literature and samples . . .

BROWN **THE BROWN PHARMACEUTICAL CO.**

2500 W. 6th St., Los Angeles, Calif. 90057

Medicaid Madness

Currently I am engaged in a group private practice of internal medicine in Nutley, New Jersey. My partners (Martin Jassie, Melvin Weinhouse) and I had a bizarre experience involving the Medicaid program. We feel that physicians practicing in New Jersey, as well as governmental officials, may find this report both interesting and enlightening.

On the evening of February 25, 1976, a 45-year old male presented himself to the emergency room at Clara Maass Memorial Hospital in Belleville, New Jersey. The patient was obviously critically ill and in great distress. He was an alcoholic with advanced cirrhosis of the liver and massive ascites. He had no private physician but had Medicaid medical insurance coverage. Since our office was designated by the hospital for service coverage, the patient became our responsibility. He was seen promptly by one of us and hospital admission was considered mandatory. The patient was semi-stuporous and complained of severe pain in his markedly-distended abdomen. He apparently lived alone in an attic and was unable to feed or care for himself. He was hostile, belligerent, and abusive. It would have taken little effort to encourage him to sign out of the hospital, which he apparently had done repeatedly in the past and most recently three days prior to the current admission.

The patient was placed on Lasix®, Aldactone®, vitamins, sodium restriction, and other standard methods of management for liver decompensation. The next morning we were besieged by representatives from social service and the hospital administration. We were informed that the patient had Medicaid and should be discharged as soon as possible since Medicaid payments were "often abruptly curtailed." The patient was an enigma. He often refused his meals and medications. He remained on the brink of hepatic coma. Paracenteses were performed on two occasions with removal of enough ascitic fluid to relieve pain and thus enable the patient to improve his eating. Occasional diarrhea augmented the problem of electrolyte imbalance. Out of pity for the patient's plight and because I was able to establish some sort of rapport with him, I personally fed him several of his meals that he initially had refused to eat.

On March 16, 1976, after twenty days of supervised hospital care, we discharged the patient. I had misgivings about the patient's condition, which was improved but still tenuous. We had insisted that our hospital's social service arrange for transfer to a nursing home which had a physician in attendance so our patient at least could continue with professional supervision. It was my feeling that he should have remained in our hospital for a longer period of time. The administrative pressures urging discharge undoubtedly influenced our judgment. We learned that this patient died about three weeks later in the designated nursing home.

Our office submitted a request for Medicaid reimbursement for our medical services. About two months later the payment was received which, of course, was considerably less than our customary charges. On August 12, 1976, we received an official letter from the State of New Jersey Department of Institutions and Agencies. They demanded that we immediately return $72 of the payment, claiming that our medical services from March 9 to March 16, 1976, were not necessary. We obeyed the official demand, explained the necessity of our services, and requested a fair hearing.

For the next several months many letters and telephone calls were exchanged. Necessary forms were filled out and forwarded. I received one letter which questioned why I personally requested the entire payment when other doctors' names were inscribed on the progress notes. I explained that those other names were those of my partners. I also explained that we jointly cared for all of our patients though the patient is charged as if he were cared for by only one doctor. A photocopy of the entire hospital record was requested and forwarded.

We were notified that our daily progress notes were not too clearly written, and we had to have a medical secretary type the progress notes in detail and resubmit them for further scrutiny.

From what I could gather, two physicians at Blue Cross reviewed our patient's records and decided that denial for payment should stand. We again requested a hearing, preferably nearby in Newark. Eventually, after several more calls and letters, we were granted a hearing in Trenton on May 12, 1977. I was advised that I could have an attorney or other representative along. I decided to call the medical editor of the *Passaic Herald News* and ask him if he would care to come to the hearing after explaining the problem. Newspapers seem to delight in writing about the handful of physicians who attempt to defraud and cheat Medicare. The editor told me that there was no reader interest in writing about the possibility of Medicaid's abusing physicians. He did offer to accompany me but only if I "agreed to become hysterical, scream, jump on the table, and so on." I told him that was not my method of settling such a dispute. A call also was made to the medical editor of the *Newark Star Ledger*. After the problem was explained, again there was little interest in exposing possible Medicaid abuse of physicians.

On Thursday, May 12, 1977, I became unavailable to my patients in order to drive one and one-half hours to the hearing in Trenton. The hearing was both a shocking and humiliating experience for me. A Blue Cross physician and a hearing officer were present. When the case was reviewed by the Blue Cross physician, the hearing officer kept interrupting, asking mundane questions—"What is cirrhosis?" "What do you mean by ascites?" "What is Lasix®?" He obviously had a limited knowledge of medicine or its scientific ramifications. This hearing officer was selected to render a decision as to whether my care was necessary.

The Blue Cross physician started his remarks by stating that "your patient was doomed to die and did not even merit hospitalization in the first place. He could have been left to die at home." Angrily, I replied that I thought we physicians took some sort of Hippocratic Oath to relieve pain and suffering. I mentioned that in the twenty-five years of practice since medical school graduation I had encountered many cases of advanced cirrhosis of the liver. Several of these patients did succumb to their disease, but I could recall cases that surprised me and managed to recover sufficiently enough to return to gainful employment. The Blue Cross physician further explained that "for every day the patient was hospitalized people like you and me have to pay taxes out of our pockets to meet his medical expenses." Furthermore, I was told that "I should be grateful for any payment received because I had cared for similar type patients in the past for no remuneration at all." I agreed that his statements were entirely correct. However, it was pointed out that I did not enact the Medicaid law. In fact, I was not even consulted about it. Being a citizen I felt compelled to follow the law as it was written. "It was my impression that the Medicaid law was created so that the underprivileged and the indigent could have decent, dignified, private-type medical care and not the type of half-assed care you have encouraged."

It was further pointed out that our office conducts a preceptor program for fourth year students from the New Jersey College of Medicine and Dentistry, who rotate through our office. My partners and I practice internal medicine. It seems that we should be in a good position to determine if one of our critically ill patients merits continued care. It would be difficult to practice medicine in the State of New Jersey if a non-professional person (the hearing officer) would be the one to decide arbitrarily if one of our critically ill patients merits further care.

At the conclusion of the hearing, I further explained that it had already cost me several times the seventy-two dollars I sought to recover. Much time was spent in writing letters, telephone calls, photostating records, and so on. However, the matter of principle and violated rights had its own value, perhaps not measurable in dollars and cents. Further, I explained that if this hearing declined my

request for vindication, I fully intended to hire an attorney to carry the case to a higher authority—seeking some authority that would comprehend this type of injustice to practicing physicians.

A few months passed. Notification was received indicating that the hearing officer had felt we were entitled to the return of the seventy-two dollars. It was also mentioned that all the evidences would now be forwarded to the Senior Hearing Officer who would render the final decision. Word from the Senior Hearing Officer stated that we would be reimbursed, but no payment was received in the next two months. Once again we wrote to the Senior Hearing Officer. I mentioned the fact that when civilians are tardy in making a governmental payment a hefty interest charge is then attached to the payment. We also inquired if it would be necessary to hire an attorney to collect the promised return of the seventy-two dollars. Further communication from the Senior Hearing Officer stated that all of our papers would now be forwarded to the Prudential Insurance Company for final disposition. The insurance company then confirmed the promised return of our funds. One year and two months after our request for a fair hearing the Prudential Company forwarded our seventy-two dollars. Two weeks later a cheerful, feminine voice called from Prudential to be certain our check had arrived. (This was the first time any insurance company ever called our office to show concern about whether their respective payment had been received.)

What an ordeal! We have on hand a pile of correspondence that measures one inch in thickness. What a waste of time! What a cost to the government and to our own office for such an unnecessary bureaucratic handling of this problem! What has happened to the practice of medicine?

Murray Strober, M.D.

There probably are many other such "horror stories" to tell of dealings with Medicaid. *The Journal* could not possibly publish all, but we felt this was representative of the problems with which our physician readers are confronted. *The Editor*

212th Annual Meeting
May 6-9

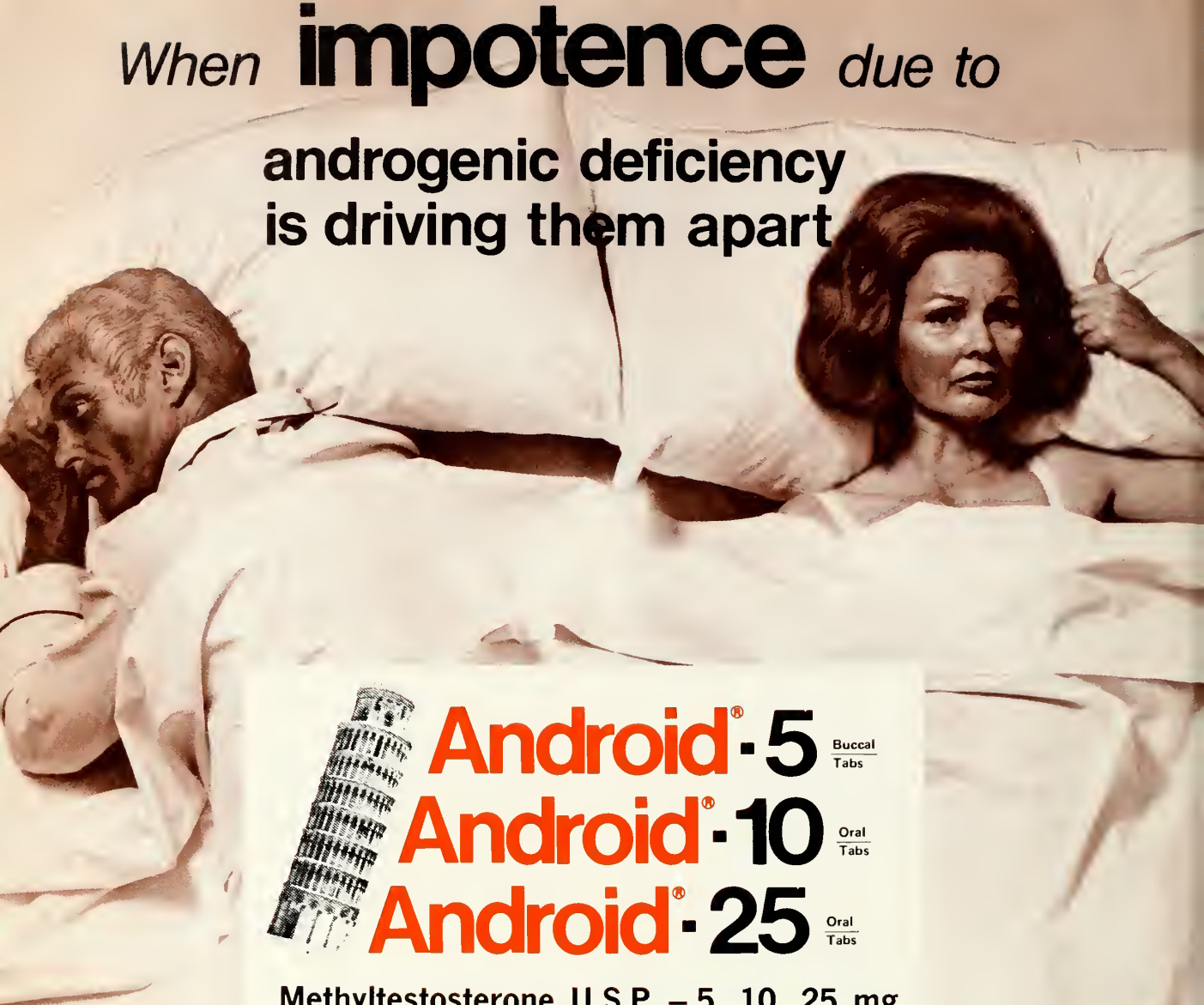
Headquarters Hotels

Holiday Inn — Howard Johnson's Regency

Atlantic City

(See housing application — p. 92, this issue)

When **impotence** due to androgenic deficiency is driving them apart



Android®-5 Buccal Tabs
Android®-10 Oral Tabs
Android®-25 Oral Tabs

Methyltestosterone U.S.P. – 5, 10, 25 mg.

Additional Indications:
REPLACEMENT THERAPY. When Androgen Deficiency is cause of:

- Male Climacteric
- Eunuchoidism, Eunuchism
- Post-Puberal Cryptorchidism

New Double-Blind Study ANDROID-25 vs. Placebo*

*R. B. Greenblatt, M.D.; R. Witherington, M.D.,; I. B. Sipahioglu, M.D.; Hormones for Improved Sexuality in the Male and Female Climacteric. **Drug Therapy**, Sept. 1976.

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE: Robert B. Greenblatt, M.D.,** and **D. H. Perez, M.D.:** "The Menopausal Syndrome," *Problems of Libido in the Elderly*, pp. 95-101. Medcom Press, N.Y., 1974. **HOW SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

BROWN **THE BROWN PHARMACEUTICAL CO., INC.** 2500 West Sixth Street, Los Angeles, California 90057

REFER TO PDR

Write for Reprints and Samples.

NEW JERSEY DOCTORS' NOTEBOOK

Trustees' Minutes

November 20, 1977

A regular meeting of the Board of Trustees was held on Sunday, November 20, 1977, at the Executive Offices, Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

Conference of Presidents and Presidents-Elect . . . Acknowledged President Begen's congratulations for the manner in which the Conference of Presidents and Presidents-Elect was presented, noting that the new format should be continued. (Dr. Begen suggested that the chiefs of staff of all New Jersey hospitals be invited to the conference in the Spring.)

Interprofessional Council of Health Associations . . . Noted that future meetings of the Interprofessional Council of Health Associations will be held at the office of the New Jersey Dental Association on the second Wednesday of every other month. (Dr. Begen suggested that a joint meeting with the Chairman of the Council on Legislation and committee chairmen might elicit problems for discussion with the various interprofessional councils.)

Use of Amphetamines . . . Noted that, contrary to the opinion of the State Board of Medical Examiners, the specifics of that Board concerning the dispensing of prescriptions for amphetamines and/or its group of sympathomimetic amines for a period in excess of fourteen days are not common knowledge and should be disseminated to all practicing physicians, hospitals, and facilities in the State, and that retroactive application was a serious one and should not be applied. A communication to this effect has been addressed to the Board of Medical Examiners.

Headquarters Facility . . . Empowered the administrative staff to begin negotiations for the purchase of a building in Lawrenceville (expending up to one million dollars) for use as a new headquarters facility for MSNJ, and authorized the officers of the Society to sign appropriate documents relating to the purchase.

CMDNJ . . . Received as informative a report from Dr. Bergen, President, CMDNJ, which discussed the following items:

1. Appreciation of MSNJ's active and visible support for the new general-obligation bonds for the College.

2. The affiliation agreement between CMDNJ-Rutgers Medical School and the Middlesex General Hospital for use of Middlesex General as Rutgers' teaching hospital. The proposal would maintain the integrity of Middlesex General as a community hospital under an independent board of trustees while providing Rutgers Medical School with a core teaching hospital of established stature, thus permitting the full expansion of the school in the third and fourth years of clinical study, and would provide extensive savings in capital expenditures as opposed to continuing with the teaching-hospital, new-building program.

3. The "Bakke Case"—Dr. Bergen feels that CMDNJ has been able to attain the proper balance between equal access to careers in the health professions for all citizens while maintaining pressure for increased standards and quality performance and that the "Bakke Case" decision will not significantly affect the policies of the College.

4. A summary of actions at the most recent meeting of the Board of Trustees of the College (on file in the Executive Offices).

New Jersey Hospital Association . . . Received as informative a report from Mr. Owen, President, New Jersey Hospital Association, which discussed the following items:

1. A temporary stay regarding the Association's suit against the Department of Health on the rule requiring hospitals to submit charge data by cost center. The Appellate Division will hear the argument.

2. The Health Care Administration Board's amended perinatal standards.

3. The State Board of Nursing activities concerning changes in the curriculum for hospital schools of nursing—there has been no further action.

MSNJ Student Association . . . Noted that the present membership of MSNJSA is 44 and accepted a check in the amount of $220 to

defray cost of *Journal* subscriptions for the 44 members.

. . . Approved the following recommendation from the Association:

That MSNJ submit articles on a regular basis to the *Innominate* that are of interest to the CMDNJ community. It is hoped that this input will publicize the involvement of MSNJ with the CMDNJ community.

Legislation . . . Approved the following recommendations from the Council on Legislation:

1. That the Board of Trustees approve, in principle, a bill prohibiting referral fee rebates and authorize its preparation for introduction into the 1978-1979 New Jersey State Legislature.

2. That the Board of Trustees approve the indicated positions on the following bills of medical import.

Current Legislation

S-3173-Menza (Creates A Separate Department of Mental Health and Disabilities at the Cabinet Level)

"Mental Illness" means a mental, emotional, or behavioral affliction which is of such kind and degree as to require specialized care but does not include developmental disability.

"Developmental Disability" means a disability originating before an individual attains 18 years of age which is of indefinite duration and produces a substantial handicap attributable to mental retardation, cerebral palsy, epilepsy, autism, or other conditions as determined by the Commissioner.

The "Commissioner" shall be appointed by the Governor with the advice and consent of the Senate and shall be qualified "by experience and training to perform the duties of his office."

Each division will be under the supervision of a Deputy Commissioner appointed by the Commissioner. Each Deputy Commissioner shall be appointed by "training and experience to perform the duties of his office."

All functions, powers, and duties of the Department of Human Services relating to mental health, mental retardation, and developmental disabilities are transferred to the Department of Mental Health and Disabilities. *ACTION DEFERRED,* pending further information from the Council on Mental Health and the Committee on Child Health.

S-3182—Dodd and 25 other sponsors (Catastrophic Health Insurance Plan Act)

This bill creates a Catastrophic Health Insurance mechanism, authorizing a principle similar to that employed in A-1552 for professional liability insurance. The initial application of catastrophic coverage involves layered payments over and above regular health insurance coverage payments or a paid deductible.

Payments used to pay benefits for individuals claiming through the fund would then be billed against a claim pool of health insurance carriers. The carriers in turn would be permitted to pass on the cost to their subscribers by means of a surcharge. *APPROVED*

Note: A recommendation from the Council concerning the above-mentioned bill was amended by the Board to read:

That the Board of Trustees support financing for catastrophic illness through an insurance mechanism.

S-3289—Russo (Same as A-3295)

This bill provides that it shall be lawful for physicians to prescribe, administer, and dispense laetrile upon the written request of the patient on a form which states "Amygdalin has not been approved as a treatment or a cure of cancer by the U.S. F.D.A."

A pharmacist shall be authorized to dispense amygdalin upon receipt of a proper prescription.

Questions related to injuries caused by such a prescription or failure to prescribe are not answered or addressed. Also the bill does not indicate how the pharmacist or the physician would come into possession of laetrile. *ACTIVE OPPOSITION,* because the drug has not been proved therapeutically valid for the treatment of cancer.

S-3298—Dugan (A Supplement to the "Health Care Facilities Planning Act")

Any rule or regulation of the Department of Health notwithstanding, no health care facility shall be denied a license or certificate of need for the operation of a maternity unit or the supplying of perinatal services if, (a) in its past calendar year of operation the number of newborn deliveries exceeded 750 births; or (b) such health care facility was the only facility during the past calendar year operating a maternity unit or supplying perinatal services in a municipality with population in excess of 70,000. *APPROVED*

S-3354—Imperiale (An Act Concerning the Prescribing, Administering or Dispensing of Amygdalin—Same as the Assembly Laetrile Bill A-3295, Senate Bill S-3289)

This bill provides that it shall be lawful for physicians to prescribe, administer, and dispense laetrile upon the written request of the patient on a form which states "Amygdalin has not been approved as a treatment or a cure of cancer by the U.S. F.D.A."

A pharmacist shall be authorized to dispense amygdalin upon receipt of a proper prescription.

Questions related to injuries caused by such a prescription or failure to prescribe are not answered or addressed. Also, the bill does not indicate how the pharmacist or the physician would come into possession of laetrile. *ACTIVE OPPOSITION,* because the drug has not been proved therapeutically valid for the treatment of cancer.

S-3381—Wiley and 9 other sponsors (To Regulate the Establishment, Maintenance and Operation of Medical Service Corporations and Medical Service Plans)

Authorizes Medical Service Plan to issue separate riders to cover chiropractic services. *NO ACTION*

S-3413—Maressa (Visual Re-examinations for Motor Vehicle Drivers License)

Amends existing law to permit all physicians to certify vision examinations. *APPROVED*

S-3450—Bedell, Musto, Fay, Maressa, Hirkala, Dodd, Imperiale

Same as *A-3570*, which is the same as *A-3568*, except it is applicable to Blue Shield coverage. *ACTION DEFERRED*, pending further information from Medical-Surgical Plan of New Jersey, New Jersey Hospital Association, and the Department of Health.

S-3451—Bedell, Musto, Fay, Maressa, Hirkala, Dodd, Imperiale, Buehler

Same as *A-3569*, which is the same as *A-3568*, except it is applicable to individual health insurance policies. *ACTION DEFERRED*, pending further information from Medical-Surgical Plan of New Jersey, New Jersey Hospital Association, and the Department of Health.

S-3452—Bedell, Musto, Fay, Maressa, Hirkala, Dodd, Imperiale

Same as *A-3568* which amends the insurance code to provide that group health insurance policies may "at the option of the insured," provide reimbursement for any nursing services within the lawful scope of practice of a duly registered professional nurse. It precludes such payment, however, when the nurse is concurrently compensated by a health care provider. *ACTION DEFERRED*, pending further information from Medical-Surgical Plan of New Jersey, New Jersey Hospital Association, and the Department of Health.

A-3083—Pellecchia, Gregorio, Adubato, Cali and Bornheimer (An Act to Amend the "New Jersey Medical Assistance and Health Services Act")

This bill expands Medicaid to the medically indigent. *APPROVED*

A-3143—Hollenbeck (Nursing Homes)

Whenever any patient in a nursing home leaves the nursing home for purposes of hospitalization, he shall, upon his release from the hospital, be entitled to return to said nursing home, and if no bed is available at the time of his release, he shall be given first preference for readmission to the nursing home. *APPROVED*

A-3295—Gregorio (Prescribing, Administering, and Dispensing of Laetrile)

This bill provides that it shall be lawful for physicians to prescribe, administer, and dispense laetrile upon the written request of the patient on a form which states "Amygdalin has not been approved as a treatment or a cure of cancer by the U.S. F.D.A."

A pharmacist shall be authorized to dispense amygdalin upon receipt of a proper prescription.

Questions related to injuries caused by such a prescription or failure to prescribe are not answered or addressed. Also the bill does not indicate how the pharmacist or the physician would come into possession of laetrile. *ACTIVE OPPOSITION*, because the drug has not been proved therapeutically valid for the treatment of cancer.

A-3364—Spizziri and 17 other sponsors (An Act to Amend the "New Jersey Controlled Dangerous Substance Act.")

This bill would amend the existing law to allow an individual to possess a one day's supply of a prescribed, sold, or dispensed controlled dangerous substance either for himself or an animal of which he is the owner, in other than the original container under the following conditions. He must have on his person the name and complete address of the practitioner or veterinarian who dispensed the substance and an identifying number under which the prescription is recorded, together with the name of the practitioner or veterinarian prescribing it, the name of the substance, and the directions for the use of the prescription by the individual or his animal. *APPROVED*

A-3482—Kean (Scoliosis)

Mandates boards of education to conduct annual screening examinations for scoliosis of pupils between the ages of 10 and 18. Suspected cases are to be reported to the parents or guardians. *APPROVED*

A-3488—Deverin (Respiratory Therapists)

Provides for the licensing and regulation of respiratory therapists and technicians under the auspices of the State Board of Medical Examiners. Provision of services other than under the direction or supervision of a physician shall be cause for revocation of licensure. *DISAPPROVED*, because the Society is not in favor of further individual licensure of ancillary personnel that must be relied upon by the practicing physician. The answer to the problem is not to license them individually, but to recognize the right of the physician to those whom he recognizes as competent and for whom he assumes responsibility.

A-3502—Villane (Medicaid)

Extends Medicaid coverage to "items" determined by the treating physician to be "medically necessary." *NO ACTION*

A-3510—Shapiro (Medicaid)

Provides that abortion services shall be compensable under the Medicaid Program. *APPROVED*

A-3523—Otlowski, Karcher

To provide for the involuntary commitment of persons for treatment of mental disorders. *ACTION DEFERRED*, until copy of bill is available and information is received from the Council on Mental Health.

A-3533—Villane, Muhler, Saxton, Kennedy

To require the Department of Human Services to inform local health agencies whenever it places a former patient of a State psychiatric hospital in a residential facility within their jurisdiction. *ACTION DEFERRED*, pending further information from the Council on Mental Health.

A-3549 – Doyle, Newman

To exempt from the requirement of obtaining a certificate of necessity any non-profit entity which had been chartered and acquired land to construct a hospital prior to enactment of the Health Care Facilities Planning Act when the land acquired is within a municipality that provided an appropriation for construction of a health care facility. *NO ACTION*

A-3561 – Gregorio, Deverin

Would extend the Good Samaritan Act clearly to cover emergency transport personnel. *APPROVED*

A-3568 – Bornheimer and 12 other sponsors

Amends the insurance code to provide that group health insurance policies may "at the option of the insured," provide reimbursement for any nursing services within the lawful scope of practice of a duly registered professional nurse. It precludes such payment, however, when the nurse is concurrently compensated by a health care provider. *ACTION DEFERRED,* pending further information from Medical-Surgical Plan of New Jersey, New Jersey Hospital Association, and the Department of Health.

A-3569 – Bornheimer and 13 other sponsors

Same as *A-3568* except it is applicable to individual health insurance policies. *ACTION DEFERRED,* pending further information from Medical-Surgical Plan of New Jersey, New Jersey Hospital Association, and the Department of Health.

A-3570 – Bornheimer and 13 other sponsors

Same as *A-3568* except it is applicable to Blue Shield Coverage. *ACTION DEFERRED,* pending further information from Medical-Surgical Plan of New Jersey, New Jersey Hospital Association, and the Department of Health.

A-3571 – Burstein and 12 other sponsors

Creates a 12-person committee to study and oversee State appropriations for public general hospitals. Four of the members would be from the general public, the other eight from the Legislature. The Committee will report annually to the Legislature. *APPROVED*

A-3574 – Burgio and 18 other sponsors

This bill would require the State to conduct an annual audit of the financial records of providers of care to Medicaid recipients applicable to Medicaid payments. *NO ACTION*

3. That the following bills of medical interest be noted and filed as not being of intimate concern at this time.

SR-3002 – Bate and Parker (State Department of Health)

Creates a Senate Committee to investigate the personnel practices in the Department, especially the rearrangement of personnel and the appointment of non-residents.

A-3326 – Hawkins, Owens, and Brown (An Act to Amend the "New Jersey Controlled Dangerous Substances Act.")

Amends the Controlled Dangerous Substances Act to include tobacco (genus Nicotiana) or any mixture, compound, or preparation thereof as a Schedule I drug whose use, manufacture, sale, or possession is prohibited.

AR-3011 – Orechio (Resolution Directing the Assembly Institutions, Health and Welfare Committee to Oversee the Implementation and to Conduct A Study of the Impact of the Gèneric Drug Program Provided for by Assembly No. 2021 of 1976.)

Creates a charge to evaluate the effectiveness of A-2021 (generic prescription bill) following its implementation with report by the Assembly Committee, Institutions, Health and Welfare to the Assembly by December I, 1977.

Mental Health . . . Approved the following recommendation from the Council on Mental Health:

That the Medical Society of New Jersey actively oppose S-1719 – Menza – An Act Establishing a Mental Treatment Standards Committee for the following reasons:

1. The psychiatric profession is not represented sufficiently on the Committee.
2. The Director of the Division of Mental Health and Hospitals should not be a member of the Committee
3. Funds are not specified to implement the program
4. Too many arbitrary decisions are permitted
5. Committee has no way to enforce its recommendations
6. Standards established by the Committee must be based on sound mental health treatment

Audit Review . . . Approved the following report and recommendation from the Special Committee on Audit Review (fiscal year 1976-1977):

I. General Fund balance (unappropriated) was $263,461 after transfer of *Journal* and Annual Meeting deficits, prior fiscal year net income received in current year, and transfer to the General Fund of the balance of the Physicians' Relief Fund; the latter was mandated by Internal Revenue Service since MSNJ's exemption under Section 501 (c) (6) does not allow for welfare or relief funds. As of October 27, 1977, MSNJ was cleared of any tax liability associated with unrelated business income from *Journal* advertising for fiscal 1974-1975, 1975-1976, and 1976-1977. The current balance of the General Fund is in keeping with the policy (adopted October 20, 1974) that MSNJ should maintain a four to six months' operating reserve.

"Land, Building, and Equipment" on the balance sheet reflects depreciation for both 1976 and 1977 – formerly not used for nonprofit organizations, but now considered sound accounting practice.

2. There are several areas under study as a means of handling the *Journal* deficit. Recommendations will be presented to the December and January meetings of the Board of Trustees.

3. Annual Meeting deficit was less in 1977 due to the large number of technical exhibitors; however, this will not pertain in 1978 as space is not available for exhibits at the 1978 Annual Meeting.

4. Interest yield on the General Fund was $37,722, an increase of $762 over the previous year.

5. Medical Student Loan Fund net investment income was $1,299 less than the previous year, due to constant interest rates and fewer contributions. Money-making projects will be underway soon to support this worthwhile activity.

6. Professional Liability Fund interest income was $32,164 and the Fund balance was $1,040,000 as of 10/31/77.

7. Dues and Special Assessments are listed in schedules 2, 3, 7, 8, and 9 of the Audit Report (on file in the Business Office).

8. The Audit Report and the minutes of the Audit Committee were forwarded to the Chairman of the Board of Trustees, the President, the Secretary and each component county medical society.

Recommendation—That the Audit Report as a whole be approved with commendation to the Treasurer and the Director of Financial and Administrative Services.

Medical Defense and Insurance . . . Approved the following recommendations of the Committee on Medical Defense and Insurance.

1. That the Executive Staffs of MSNJ and the Medical Inter-Insurance Exchange study the proper methods of implementation of the desirable items under the six-item addenda to Resolution #30—Tort Law (1977 House of Delegates—*J Med Soc NJ* 74:Tr 124 July, 1977)

The following discussion is pertinent to the resultant recommendation. It was pointed out that roughly 70 percent of closed cases involve no indemnity payments. Thirty percent of the claims seriously considered by the carrier involve indemnity. Five to ten percent of these move into trial and 90 to 95 percent of those are won by the physician.

Arbitration is not a personal injury mechanism. It is a contract mechanism designed to produce amendments to existing contractual rights and duties, to mitigate damages, and to preserve the contractual effect and relationships of the parties. It is not designed to resolve the question of liability since it is a win-win mechanism where each party is asked to give in.

Any program established concerning impaired physicians will not be in the form of censure but of help and rehabilitation.

It is entirely in the control of the carrier to set up periodic payments for large awards; final approval by court legislation might be desirable. The guideline for such a policy should be kept flexible and not set at any particular figure. No court has refused to allow such an arrangement.

The admissibility in court of evidence of remarriage to mitigate damages is not clear and will be investigated further.

The tort system was never designed and does not function as a disciplinary mechanism and contractual voluntary arbitration is available to any and all parties so desiring it under existing New Jersey law. MSNJ is working with the State Board of Medical Examiners and the Attorney General's office to produce a system and procedure for sensible and effective discipline.

2. That the Board of Trustees approve the establishment of a claims' committee and peer review mechanism by the Inter-Insurance Exchange of New Jersey as a pilot program, with a report to be submitted to the Committee on Medical Defense and Insurance at the end of one year, for evaluation and approval or disapproval of its continuation; the pilot study to be completely flexible, and the Medical Review and Advisory Committee mechanism to be continued with possible modification to update its functions.

Note: The above recommendation from the Council resulted from consideration of a referral from the Board of Trustees (*J Med Soc NJ* 74:996, November 1977) requesting alternative methods of fact development and case work-up for defense or settlement.

"The Art of Negotiating" . . . Directed that MSNJ develop a list of candidates willing to serve as a potential negotiating team.

Note: The above action resulted from consideration of a communication from the Union County Medical Society commending the staff of MSNJ on the excellence of the recent seminar on "The Art of Negotiating" and suggesting that the Board give serious consideration to the formation of a negotiating team utilizing the consultative services of a professional negotiator.

1979 Annual Meeting Location . . . Concurred in the action taken by the Executive Committee to reschedule the 1979 Annual Meeting at the Cherry Hill Hyatt House, May 19 to 22, 1979.

Note: The above action resulted from notice that the Resorts International Hotel in Atlantic City will not have facilities for registration, the House of Delegates, exhibits, scientific sessions, or evening functions.

. . . Directed that the Committee on Annual Meeting report to the January meeting of the Board of Trustees on the pros and cons of separating the business of the House of Delegates from the scientific and social functions of the Annual Meeting.

Social Security Number as Identifier . . . Authorized the President and Chairman of the Board of Trustees to take steps to request a preliminary injunction of the courts in the matter of an HEW regulation which requires physicians to supply their social security numbers for identification purposes on Medicaid claim forms, in the interest of protecting the physician's right to privacy. The New Jersey Pharmaceutical Association, the New Jersey Hospital Association, and the New Jersey Association of Osteopathic Physicians and Surgeons will be asked to join MSNJ *amicus curae* in resolving this problem.

Report from the Foundation

Daniel J. O'Regan, M.D., Medical Director

Happy 1978 to all from the Board of Trustees, Executive Committee, Officers, and Staff of NJFHCE! This is the beginning of the sixth year for the Foundation. At the start of last year, we were speculating on the attitudes and activities of the new national administration in regard to medical care. One of those activities will be manifest next month. Secretary of HEW Joseph Califano has invited representatives of the 500 largest industrial firms to a meeting on prepaid health care. This is another indication of the increased emphasis on this subject. The Secretary and Undersecretary, Hale Champion, have been extolling the virtues of prepaid care during most of the past year. While Mr. Califano's approach to the problems of medical care leaves much to be desired, his sponsorship of prepaid plans is another indication of why physician interest—and activity—in this field is mandatory. Such interest and activity is on the rise in New Jersey, as evidenced by the frequency of requests for information from this office. As a complete contrast to six years ago, there are very few areas of our State where physicians are *not* expressing an interest in prepaid care in general, and in the Individual Practice Association (IPA) concept in particular.

The passage of Public Law 95-142 last Fall, is another indication of where the attention of government will be directed. P.L. 95-142 started out as H.R. 3, the Medicare-Medicaid Fraud and Abuse Bill. Many of its provisions are aimed at so-called "Medicaid Mills" and some practices of nursing home operations. It will represent added responsibilities for PSROs as time goes on. PSRO involvement in long-term care and in the ambulatory care arenas will evolve under the provisions of P.L. 95-142.

Attention has been directed to the area of "unnecessary" surgery. The Health Care Financing Administration has called for Medicare financing of second surgical opinions on a voluntary basis, following the lead of the "Blue" plans. Let's hope that "unnecessary" does not become confused with "elective," and that genuine differences of medical opinion are recognized. Documentation of the need for surgical procedures should be complete and clear. The National Professional Standards Review Council has been asked to assemble criteria for ten of the most common surgical procedures by next month. Some influential members of the Congress are pressing DHEW for factual information.

You may have read about a report prepared last November for DHEW, which appears to show that the PSRO program has not been effective in *controlling costs.* This study, done in just 18 areas (only 5 percent of which are in the eastern United States), was assailed by the National Professional Standards Review Council as being fragmentary and premature. Its aim was skewed, because cost control is *not* the primary objective of PSRO. Reviewing quality, necessity, and appropriateness of medical care by means of a peer review process is its purpose. Efficiency of care, not discount house service, is what we are interested in, and it's much too early to evaluate it. January 1979 may be more appropriate.



the
american
dietetic
association

NATIONAL NUTRITION WEEK MARCH 5-11

AMA National Health Insurance Proposal

A Plan to Provide Everyone with Comprehensive, Private, Health Insurance Coverage — H.R. 1812 and S. 218

1. Why do physicians support national health insurance?

As the ones responsible for caring for patients every day, physicians know how essential quality medical care is to the health and well-being of an individual. They also are very much aware that the cost of health and medical care has become a financial burden for certain segments of our population. Even for those with substantial incomes, a long or serious illness can create serious financial problems.

These are the concerns that led physicians, through the American Medical Association, to develop their own national health insurance plan. It is called the *Comprehensive Health Care Insurance Act of 1977* (H.R. 1818 and S. 218) and was introduced in Congress January 13, 1977.

2. What is the physicians' plan?

The plan is just as the title indicates—a program to extend private, comprehensive health insurance coverage to everyone.

In formulating the plan, the physicians established a comprehensive list of medical and health services that would be available to everyone, incorporated a set of principles to assure quality care, and based the entire program on a sound, realistic financing mechanism.

Integral to the plan is the belief that federal financial help should be provided to those who need it most, and that everyone should be free to choose his or her own physician and health insurance plan.

Further, physicians believe any program of national health insurance should be built on the best of the present system—a system which already is providing more and better health care to more people than in any other country.

3. How does the plan work?

The program would provide a complete package of benefits essential to good health care, as well as protect against the cost of catastrophic illness without limits.

Realistic preventive care benefits also would be included. Importantly, the plan is designed to keep red tape and bureaucracy to a minimum.

The actual health care protection would be furnished entirely by a private health insurance policy or plan. Coverage would be available through the present system of employer-employee group health insurance plans; or through a program for the self-employed and non-employed. Supplemental coverage would be available to those eligible for Medicare to raise the level of benefits to equal those of the physicians' plan. Individuals currently receiving Medicaid benefits would receive them through this new program.

Benefits—Under the physicians' plan, approved protection would have to provide payment of expenses for both basic and catastrophic health care needs. This would be true whether an individual participates in the employer-employee program, the program for the self-employed and non-employed, or the supplemental coverage for Medicare beneficiaries. All insurance plans offered would be approved by the respective states to assure that benefits met the comprehensive national standards.

Benefits for a 12-month period would have to include:

- 365 days of hospital inpatient care
- 100 days of inpatient care in a skilled nursing care facility
- all emergency and outpatient services
- all physician care (diagnostic, therapeutic, and preventive, regardless of where it is provided) and other health services
- all home health services
- all dental care for children
- emergency dental care for everyone
- ambulance service
- institutional and outpatient psychiatric care
- well-baby care
- immunization

- physical examinations
- x-ray and laboratory services
- anesthesiology services

Employer Coverage—Most people would receive their health care protection as they do now—through the current system of employer-employee group health insurance. The employer would be required to offer the insurance but participation by the employee would be voluntary. At least 65 percent of the health insurance cost would have to be paid by the employer, the rest would be paid by the employee. Financial assistance will be provided for small businesses.

Self-Employed, Non-Employed, and Medicare-Eligibles—Individuals or families in these categories could buy qualified health care insurance. The insurance plan would have to meet the established national standards of benefits and policy conditions. The federal government would contribute toward the cost of the policy according to the individual's or family's ability to pay. The amount for a given year is measured according to how much the individual or family paid in income tax the preceding year.

—For example, a family of four earning $6,000 a year would pay no income tax.† Therefore, the federal government would pay the entire cost of the health insurance premium.

—For a family of four earning $7,000 a year, the income tax would be $133. The federal government would pay 86 percent of the cost of the family's health insurance premium.

—For a family of four with an annual income of $11,300, the income tax† would be $893. For this category (and any individual or family paying more than $891 income tax), the federal government would pay 10 percent of the cost of the family's health insurance premium.

The financial assistance would in the form of an income tax credit or a certificate to be given to the insurance company toward payment of the premium.

†The income tax figures as shown are based on 1976 IRS tables.

Unemployed—Unemployed persons, while eligible for federal or state unemployment compensation, would continue to be covered by their previous employer-sponsored insurance. Premiums would be paid by the federal government. If unemployment compensation expired before new employment, the government would continue to cover health insurance premiums for the rest of the year. At the beginning of the new calendar year, the individual immediately would be eligible for the non-employed subsidy program (described in previous paragraphs). Because of this provision, there would be no interruption in coverage.

Coinsurance—As with any program that offers as many benefits as the medical profession's plan, financial safeguards must be included, otherwise the program would be too expensive for the taxpayers to afford. In this program there would be cost-sharing in the form of coinsurance.

Although the amounts are small, cost-sharing between citizens and the government would help keep the total cost of the program at a reasonable level. It would help prevent policy holders from going to a physician "just because it's paid for" or entering a hospital "because it's more convenient."

Coinsurance would be 20 percent of the cost of all covered benefits, but not more than a specified ceiling limit related to income. The poor would pay no coinsurance.

This coinsurance maximum (the most an individual or family would pay) would be equal to 10 percent of the individual or family income after a "coinsurance deduction" has been subtracted. The coinsurance deduction is figured according to family size. For example, the deduction is $4,200 for a family of four. So if a family of four earns $10,000, the coinsurance limit (or total cost) for a 12-month period would be $580, or 10 percent of $5,800 (salary of $10,000 minus deduction of $4,200). The family would not have to pay more than $580 for all of the medical services provided in that year, even if there were expenses of a catastrophic size.

In no case could coinsurance exceed $1,500 for an individual or $2,000 for a family, regardless of income.

As soon as a family or individual reaches the limit on coinsurance, the catastrophic portion of the plan would take over.

4. Will national health insurance really solve America's health problems?

Unfortunately, no—because many of America's health problems do not have purely medical solutions. Many of these problems can be solved only when our society commits itself to eliminating the root causes, such as poor housing and sanitation, malnutrition, smoking, lack of exercise. A basic and essential step in accomplishing this objective is the dissemination of good, sound health information to the public.

Over the years, America's physicians, through the AMA, have been involved deeply in health education. The AMA has on-going programs to educate the public about drug abuse, venereal disease, proper nutrition, and exercise.

The AMA also is working hard to increase the capability of our health care system by encouraging and supporting the expansion of the allied health professions and increasing the number of physicians. The AMA is particularly gratified that the total enrollment in U.S. medical schools has increased from 32,500 in 1965 to 56,000 in 1976. An equally important development is the increasing number of medical students entering the primary care areas of family practice, internal medicine, obstetrics and gynecology, and pediatrics. In 1974 alone, 58 percent of the graduating students entered residency training in these areas.

The AMA also has been a very active and positive force in the passage of constructive health and medical care legislation for the public. It has supported strongly such federal legislation as:

- maternal and child health programs
- protection of human beings in medical research
- drug abuse education
- medical devices' safety standards
- cancer research
- assistance for allied health personnel, public health personnel, and nurse training

In addition, the AMA has authored and introduced legislation:

- to develop community emergency medical services programs
- to improve rural health care delivery
- to upgrade health care for American Indians

Many years ago physicians, themselves, pioneered peer review programs, and set up safeguards to ensure that all patients receive quality medical and health care.

Even though our present system provides more and better health care to more people than in any other country, physicians are aware that the American system is not perfect. And they are as concerned as anyone about its improvement. The Comprehensive Health Care Insurance Act is only one of many AMA programs demonstrating physicians' active campaigns to improve health care and its delivery in America.

CMDNJ Notes

Stanley S. Bergen, Jr., M.D.
President, CMDNJ

A reflection on the College's progress during the past few months reveals new faces, new affiliations, and both inner and outer growth of the institution, all of which go toward providing better health care services and medical education facilities and capabilities.

Foremost among the new faces are CMDNJ's three new deans who were honored at a recent reception at the CMDNJ-Rutgers Medical School, Piscataway.

For one of the deans, the return to CMDNJ has been a homecoming. Theodore E. Bolden, D.D.S., Ph.D., a noted oral pathologist, is the dean of CMDNJ-New Jersey Dental School, where he formerly served five years, first as assistant professor and then as associate professor during the founding years. Dr. Bolden, formerly professor of dentistry and associate

dean of the Meharry Medical College's School of Dentistry, was on the faculty of the Seton Hall College of Medicine and Dentistry, Jersey City, the predecessor institution of CMDNJ. At the CMDNJ-New Jersey Dental School's new Newark campus, Dr. Bolden is presiding over the reconversion of the school from a three to four-calendar-year curriculum.

Leading the major expansion of third and fourth-year classes at CMDNJ-Rutgers Medical School is the new dean, David J. Gocke, M.D., a prominent immunologist who came to the school in 1973 as a professor of microbiology and medicine. This fall, the school's third-year class has expanded to 72 students (from 56 last year), and in the next two years it is authorized to accept up to 108 students.

The third new dean, Benjamin L. Cohen, D.O., a prominent pediatrician and educator, heads the new CMDNJ-New Jersey School of Osteopathic Medicine, which opened to its first class of 24 students this fall at the CMDNJ-Rutgers Medical School. The osteopathic medicine students will take their clinical training in South Jersey hospitals.

On the administrative side of CMDNJ, the newest face belongs to Jack Keretsky, who has been named by CMDNJ's Board of Trustees to head the newly created post of Vice President for Health Care Facilities. A specialist in the administration of hospitals and health care programs, Mr. Karetsky was executive vice president of the Health and Hospitals Corporation, New York City. His responsibilities include monitoring and overall management of health-care facilities and programs of CMDNJ.

Also coming from the New York City Health and Hospitals Corporation is William C. Howe, the new CMDNJ director of personnel resources, who is responsible for the coordination of personnel procedures and policies for all components of the College.

At Martland Medical Center, the primary teaching hospital of CMDNJ-New Jersey Medical School, A. Sue Brown is the new executive director. Prior to her appointment Ms. Brown served two years as acting administrator of the hospital, and before that she was state health planner with CMDNJ. As executive director, she assumes responsibility for 2,500 employees and for administering and coordinating the day-to-day operations of the 544-bed hospital, which provides health care for more than 200,000 patients per year.

On the outer growth of the College, CMDNJ and Middlesex General Hospital, New Brunswick, have agreed in principle to an affiliation which will make the hospital the major teaching facility of CMDNJ-Rutgers Medical School. The association with an existing and highly regarded health-care facility will add immeasurably to teaching and learning experiences, and will benefit the community that the hospital already serves. This action follows a major affiliation agreement between CMDNJ and the John F. Kennedy Memorial Hospital, Stratford, which is the College's first association with a hospital in osteopathic medicine. This 215-bed facility will serve the clinical educational needs of CMDNJ-New Jersey School of Osteopathic Medicine.

There are 344 new faces pursuing graduate degrees in the health sciences at CMDNJ this academic year. The highest enrollment in the College's history has been reached—1,424 students studying medicine, dentistry, the life sciences, and the allied health professions at CMDNJ's six schools. This marks an increase of 110 students over last year's record enrollment of 1,314.

Where We Stand

Where We Stand, a pamphlet delineating MSNJ's official position on medical and health issues, is available upon request from the Public Relations Office, MSNJ, P.O. Box 904, Trenton, New Jersey 08605.

Therapeutic Drug Information Center*

1. It is a common practice to crush methenamine hippurate tablets (Hiprex®) for patients having difficulty in swallowing oral solid medication at our institution. Will crushing the tablet destroy its action?

Methenamine in the form of its mandelic acid salt, methenamine mandelate (Mandelamine®), and its hippuric acid salt, methenamine hippurate (Hiprex®), are utilized widely in the treatment and prevention of urinary tract infections.[1,2] The antibacterial effect of methenamine depends on its decomposition in urine to yield formaldehyde, which in turn is affected by the acidity of the urine, with maximum effectiveness occurring at a pH of 5.5 or less.

When administered orally, unless enteric coated, 10 to 30 percent of the dose of methenamine is converted to formaldehyde and ammonia by the acidic gastric contents.[3] These decomposition products may account for mild gastric irritation, but gastrointestinal distress occurs with the enteric-coated tablets as well. Once absorbed, little of the methenamine decomposes in tissue and blood, and the drug is excreted rapidly into the urine for conversion to formaldehyde, providing the medium is acidic. Utilizing the recommended dosage, and at a pH of 5.5 or less, the concentration of formaldehyde obtained in the urine far exceeds the minimum inhibitory concentration required for most urinary pathogens.

Interestingly, methenamine mandelate tablets (Mandelamine® tablets) are enteric coated, but the granules (Mandelamine® granules) are not.[2] There appears to be little support in the literature concerning the justification for an enteric coating to prevent the release of formaldehyde in the stomach.[4,5] The granules, which are to be dissolved in water immediately prior to administration, and the suspension appear to be effective in spite of their possible interaction with stomach acid. Methenamine hippurate is only available in tablets which are not enteric-coated and appears to be equally effective as the enteric-coated methenamine mandelate tablets and at a lower dosage.[1]

In conclusion, for patients who cannot swallow methenamine hippurate tablets, the methenamine mandelate granules or suspension offer an alternate dosage form. There appears to be no contraindication to crushing the methenamine hippurate tablets for patients who are unable to swallow the intact tablets.

References

1. Anon: Methenamine Hippurate (Hiprex®): *The Medical Letter*, 10:58-60 (July 26) 1968.

2. Anon: *Physician's Desk Reference*. Oradell, New Jersey, Medical Economics, 1977, p. 1676-1678.

3. Goodman LS and Gilman A: *The Pharmacological Basis of Therapeutics*. New York, Macmillan, 1975, p. 1006-1007.

4. Anon: *American Hospital Formulary Service*. Washington, D.C., American Society of Hospital Pharmacists, 1977, 8:36.

5. Anon: *AMA Drug Evaluation*. Chicago, American Medical Association, 1977, p. 791.

2. Please provide information concerning diabetic proliferative retinopathy as a possible side effect of insulin therapy.

Development of diabetic retinopathy and blindness has increased over the last 50 years, despite the use of exogenous animal insulin for the treatment of diabetes mellitus.[1]

One explanation of this phenomenon is that the use of animal insulin does not alter the nature of diabetic retinopathy, but merely allows the patient to live longer, permitting the retinopathy to develop its full course.[2]

Some characteristics of proliferative retinopathy, however, are suggestive of an immunogenic action of insulin. In a study by Shabo and Maxwell,[3] the possibility was considered that diabetic patients with background retinopathy, who receive exogenous insulin, could leak small amounts of insulin into the eye, and develop proliferative retinopathy as a result of an antigen-antibody reaction. Fifteen Rhesus monkeys, sensitized to insulin by footpad injections of three weekly doses of crystalline beef insulin, received various amounts of insulin injected into the vitreous humor of the eye. One control monkey was not sensitized to insulin and was given the intravitreal injections. Another control monkey was sensitized to insulin, but received intravitreal saline injections rather than insulin. Retinal lesions developed in the experimental animals similar to those observed in human proliferative diabetic retinopathy. Lesions did not occur in either of the two control animals.

An experiment in humans was conducted by Anderson,[4] in which 184 insulin-dependent diabetics were studied. One hundred and ten of these patients were without late diabetic complications (such as proliferative retinopathy), and 74

---

*The Schwartz Inter-National Pharmaceutic and Therapeutic Drug Information Center of the Brooklyn College of Pharmacy, Long Island University, compiles the information contained in this column each month. The Center serves as a source of intelligence on therapeutic and pharmaceutic information not readily available to physicians, at no charge to them, and provides this information with minimal time involvement. It is staffed by trained pharmacists; Jack M. Rosenberg, Pharm. D., Associate Professor and Chairman, Division of Clinical Pharmacy, Brooklyn College of Pharmacy, is Director and Walter Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College, is pharmacologist consultant. The service is available Monday through Friday from 9 a.m. to 4:30 p.m.—telephone (212) 622-8989 or 303-2735. The following are questions and answers handled by the Center recently.

This month's column was prepared by J. M. Rosenberg, M.S., Pharm. D., M. K. Raina, M. Pharm., Ph.D., P. Sangkachand, B.S., Alan Bakst, Pharm. D., Doris Lau, B.S., Brooklyn College of Pharmacy, LIU.

of them had these complications. The frequency of high titres of plasma-insulin-binding capacity was significantly greater among patients with the diabetic complications as compared to the frequency in those without such complications.

A similar study was conducted by Bemm and Lohmann.[5] One hundred sixty-four diabetic patients were examined for serum insulin antibody activity. The length of treatment with insulin and the duration of diabetes were found to be correlated closely with the development of organic complications and insulin antibodies.

In summary, though proliferative retinopathy may develop with time in any diabetic, including those who have never received insulin, preliminary studies in both animals and humans have suggested a possible immunogenic property of insulin, which may be related to the development of proliferative retinopathy. Future studies may serve to further confirm this hypothesis.

References

1. Leopold IH: Diabetic retinopathy. *Eye Ear Nose Throat Mon* 53:412-476, 1974.

2. Cant JS, editor: *The Ocular Circulation in Health and Disease*. St. Louis, Mosby, 1969, p. 200-204.

3. Shabo AL and Maxwell DS: Insulin-induced immunogenic retinopathy resembling the retinitis proliferans of diabetes. *Tran Am Acad Ophthalmol Otolaryngol* 81:497-508 (May-June) 1976.

4. Anderson OO: Anti-insulin antibodies and late diabetic complications. *Acta Endocrinol* 83:329-340 (Oct.) 1976.

5. Bemm H and Lohmann D: Late complications of diabetes mellitus—Consequence of immunologic reactions? *Allerg Immunol* 20-21:15-20, 1974-1975.

3. Please provide information concerning valproate sodium in the treatment of epilepsy.

Valproate sodium (Depakene®), marketed widely outside the United States, is an orally active broad spectrum anticonvulsant particularly suitable in the treatment of petit mal, grand mal, mixed generalized and psychomotor epilepsies. The drug currently is under investigation by Abbott Laboratories in this country and is expected to be commercially available in the near future. It is structurally unrelated to conventional antiepileptics and can either be used alone or in combination with other agents of this class.

Biological studies indicated that valproate sodium may have a different mode of action than other anticonvulsants, producing an increase in the level of gamma aminobutyric acid (GABA) by inhibiting its degrative enzymes.[1] Pharmacodynamic studies have shown that it does not affect the autonomic nervous system, and lacks significant cardiovascular, renal, or respiratory effects. It may have intrinsic hypnotic action, but in clinical practice seems to increase awakeness and alertness in many epileptic patients.[2]

Meinard[3] studied 30 patients between the ages of two to 39 years with several different types of epileptic seizures. Twenty of these patients experienced more than one-third reduction in frequency of seizures, compared with the number of seizures experienced during their usual therapy, while they were treated with valproate sodium.

Suzuki[3] conducted a double-blind study comparing the efficacy of ethosuximide (Zarontin®) vs. valproate sodium in 35 children aged five through 15 years with several different types of epileptic seizures. Valproate sodium's effects were judged "excellent" (75 to 100 percent reduction in seizure frequency) in 25 subjects. The other ten showed less than 75 percent reduction in seizures. Ten of 15 children suffering petit mal seizures who were treated with one drug alone (either valproate sodium or ethosuximide) had complete cessation of seizures. The investigators judged valproate sodium better than ethosuximide in four of these cases, equivalent in five, and ethosuximide better than valproate sodium in one.

Richens and Ahmad[4] conducted a double-blind crossover trial in 20 patients with chronic uncontrolled epilepsy. Valproate sodium or placebo was added to the existing anticonvulsant therapy. Valproate sodium (1200 mg/day) significantly reduced the frequency of both tonic-clonic and minor seizures in these patients. Only mild and transient side effects occurred (drowsiness, ataxia, and nausea), and these may have been due to the effect of adding valproate sodium to existing phenobarbital or phenytoin (Dilantin®) treatment.

Simon and Penry[5] reviewed the published literature of valproate sodium in 1975. They found that in 218 patients with petit mal seizures, 140 (64 percent) had a 75 to 100 percent decrease in seizure frequency, 51 patients (23 percent) showed better than one-third reduction, and another 27 patients (13 percent) showed less than one-third reduction. Of 279 patients with tonic-clonic epilepsies, 147 (53 percent) showed a 75 to 100 percent decline in seizure frequency, while another 21 percent (58 patients) had more than one-third improvement, and the other 74 patients (26 percent) showed less than one-third reduction.

In conclusion, it appears that valproate sodium is effective for the treatment of seizures and will be available commercially in the United States in the near future.

References

1. Harvey IC and White HJO: Sodium valproate in chorea. *Br Med J* 2:1107 (Nov. 6) 1976.

2. Anon: Sodium valproate is valuable in epilepsy. *Infarma* 17-18 (Feb. 19) 1977.

3. Anon: Epilepsy commission favors quicker use of drug to control seizures. *JAMA* 237:2021-2022 (May 9) 1977.

4. Richens A and Ahmad S: Controlled trial of sodium valproate in severe epilepsy. *Br Med J* 2:255-256 (Nov. 1) 1975.

5. Simon D and Penry JK: Sodium-Di-N-Propylacetate (DPA) in the treatment of epilepsy—A review. *Epilepsia* 16:549-573, 1975.

Statement by the Governing Body of Jehovah's Witnesses

To Members of the Medical Profession:

Jehovah's Witnesses appreciate that through your skillful practice of medicine you have been able to aid many persons. Blood transfusion may have been one of your principal treatment tools.

Since blood transfusions are so widely used, many in the medical field have been perplexed by Jehovah's Witnesses' refusal to accept blood. Logical questions arise, such as: Why do Jehovah's Witnesses believe as they do? What does their stand respecting blood mean for you who are in the medical profession? And what can you do if you are called on to treat one of Jehovah's Witnesses?

Some persons mistakenly have concluded that Jehovah's Witnesses disagree with the practice of medicine or that we want to be martyrs. Both ideas are incorrect. When ill or injured we willingly seek medical help, for we desire to stay alive and enjoy good health. From our study of *The Bible* we have come to view life as sacred, something to treasure, not to squander or needlessly endanger.

It is not our intent here to take issue with the medical or scientific advisability of blood transfusions. You who are authorities in the field of medicine appreciate that blood transfusion is a "standard medical practice" in many situations. The fact is, though, that our objection to accepting blood is not primarily a medical one; it is a biblical or religious objection.

We understand *The Bible* to prohibit a Christian's taking blood, sustaining his life with blood. In a number of places *The Bible* pointedly forbids consuming blood. And *The Bible* Book of Acts sets forth a command to all Christians to "abstain from . . . blood." (Acts 15:20, 28, 29; 21:25) Abstaining from blood is therefore as important for Christians as abstaining from idolatry or fornication.

True, persons of various religions may have differing views as to the meaning of these *Bible* passages. But we, Jehovah's Witnesses, understand these important texts as ruling out blood transfusions. For more details about the biblical basis for this position, and confirmation of it from the history of early Christians, we invite you to read our booklet *Jehovah's Witnesses and the Question of Blood.*

So it is for *religious* reasons that Jehovah's Witnesses do not accept blood transfusions. We appreciate that this stand might seem to a doctor to be a dangerous one. And it might appear to put a real limitation on what a physician or a hospital staff can do. But Jehovah's Witnesses do not expect those in the medical profession to do the impossible in providing medical care. We simply ask that you do the best you can within the bounds of this religious limitation, just as you do the best you can when caring for a patient whose physical condition puts upon you certain limitations. We appeal to your conscience and your respect for fundamental human rights to acknowledge our right to worship without our being asked to do what is not possible for us – disobey God.

Not only may there be conflicting professional views over what is in a patient's best interest and lasting welfare, but also there is the matter of a patient's beliefs and wishes to consider. As was pointed out in the *Canadian Medical Association Journal:*

"It is an axiom of practice that nothing may be done to or for a patient without that patient's permission. Even though a doctor thinks that without treatment a patient may come to harm, without consent he may not administer the treatment he considers necessary. A doctor is not God, nor is he a dictator, and he may not impose treatment against a patient's wishes." – Vol. 96, No. 2, p. 98, 1972.

This is the principle of "bodily integrity," that each person has the right to be the final authority over what will be done to him. The courts in free lands often have upheld this right even in cases involving medical treatment where life is at stake. This principle of "bodily integrity" comes into focus when one of Jehovah's Witnesses declines a medical recommendation that he accept blood.

Jehovah's Witnesses are aware that in certain extreme cases our *Bible*-based stand on blood might seem as if it could bring fatal consequences. However, we do not want anyone in the medical profession to feel responsible for any seemingly harmful results of our determination to obey God. It is our responsibility and we accept it.

Yet, what is a doctor or nurse to do when a Witness seems to need blood? The book *Blood Transfusion*, edited by Dr. C. M. Ballinger, explains that sometimes a physician thus may feel that he cannot handle the case. But it also states that the doctor may choose to:

". . . require the patient to sign a written refusal to permit a transfusion. This refusal is in the form of a request that no blood or derivatives be administered to the patient, notwithstanding the fact that such treatment might be necessary to preserve life or to promote recovery. Embraced within the form is a release by which the attending physician, those assisting him, the hospital and all its personnel are acquitted of any responsibility whatever for any 'untoward results' arising from the refusal to permit the use of blood." — *International Anesthesiology Clinics*, Vol. 5, No. 4, p. 1952.

Jehovah's Witnesses will cooperate with this suggestion. A form approved by the American Medical Association is set out on page 29 of our booklet on blood. By signing such a waiver we willingly relieve doctors and their associates of any responsibility or liability for possible adverse consequences of our refusing blood.

The fact is that in most instances much medical help can be given to Jehovah's Witnesses without blood being administered. Reports bearing this out are found in numerous publications. For example, Professor W. H. Brummelkamp, a surgeon in Amsterdam, Netherlands, recently wrote:

"Every surgeon who often has operated on Jehovah's Witnesses knows that by means of calmness, extreme carefulness and a measure of skill, in addition to good communications with the anesthetist, almost all surgery on this group of patients can be done successfully." — *Plasmavervangingsmiddelen* (Plasma Substitutes), edited by Drs. A. Jansz and A. van der Kuy, pp. 93, 94.

Such surgery has been accomplished successfully by employing extremely careful operative techniques and using plasma volume expanders, for example, Ringer's lactate solution and dextran. Jehovah's Witnesses have no religious objection to the use of such nonblood solutions. Medical reports show that surgeons thus have been able to perform extensive operations on all parts of the body. In fact, in their article "Open Heart Surgery Without Blood Transfusion," a group of surgeons reasoned:

"If these major operative procedures usually can be performed without the aid of transfusion, is this not an indication that some lesser operations similarly may be performed? Are not the hazards of blood transfusions needlessly accepted in many instances where the operation could quite safely be undertaken without the use of additional blood?" — *Surgery Digest*, Vol. 7, No. 5, p. 31.

From your experience and study you probably are well aware of some of the significant "hazards of blood transfusions." In this regard we believe that you will find noteworthy the medical information about transfusions and medical ethics reviewed in our booklet. But let us emphasize that in referring to such acknowledged dangers, we do not mean that Jehovah's Witnesses object to blood transfusions primarily for medical reasons. And we recognize that each person in the medical profession likely has his own view about the advisability of transfusions. Our point is, however, that rather than face the "hazards of blood transfusions," we are willing to accept any seeming hazards resulting from our not receiving blood. Furthermore, we respect the good judgment of skilled, courageous surgeons as to alternative therapies.

This is an extremely serious matter for Jehovah's Witnesses. It involves our solemn obligation to God. We are providing this brief statement of our position so that medical personnel can be aware that our refusing blood is not a rash decision made on the spur of the moment. It is a well-thought-out determination resulting from our sincere religious convictions.

We urge persons in the medical profession to display their true interest in the total welfare of patients. As you know, increasingly doctors are emphasizing the need to treat the "whole man." With regard to Jehovah's Witnesses, this involves recognizing that their lasting welfare would not be served by attempting to override their fundamental religious conviction about blood. For, as a group of surgeons who are experienced in treating Jehovah's Witnesses pointed out, "who would benefit if the patient's

corporal malady is cured but the spiritual life with God, as he sees it, is compromised, which leads to a life that is meaningless and perhaps worse than death itself?"—*New York State Journal of Medicine*, Vol. 76, No. 5, p. 766.

We respectfully appeal to all members of the medical profession to employ their skills and experience in aiding patients who are Jehovah's Witnesses. Our religious obligation to avoid accepting blood transfusions can be accommodated successfully. Doctors and nurses who have done so have found Jehovah's Witnesses to be cooperative, appreciative patients. And they are patients whose *Bible*-based desire to live adds a vital ingredient to the skilled efforts of medical personnel.

Physicians Seeking Location in New Jersey

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly to them.

ANESTHESIOLOGY—Alan D. Weinstock, M.D., 320 Ocean Parkway, Apt. E-7, Brooklyn 11218. Einstein 1974. Board eligible. Group or partnership. Available July 1978.

Barry S. Wilderman, M.D., 52316-1 Biloxi Circle, Fort Hood, Texas 76544. Temple 1972. Board certified. Solo, specialty group, partnership. Available July 1978.

FAMILY PRACTICE—Thomas P. Harakal, M.D., 202 Laura Drive, Danville, Pa. 17821. Temple 1975. Board eligible. Group or partnership. Available July 1978.

Lloyd A. Davis, M.D., 3 Dartmouth Ave., Bridgewater 08807. Georgetown 1975. Board eligible. Single specialty group or partnership. Available July 1978.

Ira Rabin, M.D., 153 Pierrepont Street, Brooklyn, New York 11201. Michigan 1969. Board eligible. Group. Available on 30 days' notice.

Gordon S. Walbroehl, M.D., 406 Dupont Way, Wright-Patterson AFB, Ohio 45433. CMDNJ 1972. Board eligible. F.P. residency, teaching staff. Available August 1978.

B. D. Agarwal, M.D., 245 Oakwood Road, Apt. 1-C, Charleston, West Virginia 25314. India 1966. Partnership or solo. Available.

GASTROENTEROLOGY—Steven C. Fiske, M.D., 3312 Stearns Hill Road, Waltham, Massachusetts 02154. NYU 1973. Board certified (IM). Partnership or group (academically oriented). Available July 1978.

Jacob Nudel, M.D., 300 Winston Drive, Cliffside Park 07010. NYU 1973. Board certified (IM). Group, partnership, or solo. Available July 1978.

GENERAL PRACTICE—Adaline E. Zalkin, M.D., 250 Beverly Blvd., Upper Darby, Pa. 19082. Guadalajara 1975. Partnership. Available July 1978.

INTERNAL MEDICINE—Stephen E. Weinberg, M.D., 663 Cumberland Avenue, Syracuse, New York 13210. Hahnemann 1971. Subspecialty, cardiology. Board certified (IM). Group, partnership, hospital-based. Available July 1978.

Donald C. Brennan, M.D., 3351 South Port Drive, Sacramento, California 95826. SUNY (Downstate). Subspecialty, hematology/oncology. Board certified (IM). Group or partnership. Available July 1978.

Charles W. Werner, M.D., 151-68 11th Avenue, Whitestone, New York 11357. Bologna (Italy) 1970. Subspecialty, gastroenterology. Board eligible (IM). Group, partnership, solo. Available July 1978.

Ramesh K. Gandhi, M.D., 2210 Mattis Drive, Dayton, Ohio 45439. Amritsar (India). Subspecialty, gastroenterology. Board certified (IM). Group, partnership, solo. Available July 1978.

John J. Cassel, M.D., 101 Valley Drive, Bolingbrook, Illinois 60439. Jefferson 1973. Subspecialties, cardiology, pulmonary medicine. Board certified (IM). Any type practice. Available July 1978.

Anilkumar Raotibhai Patel, M.D., Deborah Heart and Lung Center, Browns Mills, New Jersey 08015. Makerere (Uganda) 1970. Subspecialty, cardiology Board certified (IM). Group, partnership, institutional. Available July 1978.

Barry Sanders, M.D., 9113 Cloisters East, Richmond, Virginia 23229. SUNY (Buffalo) 1973. Subspecialty, gastroenterology. Board certified (IM). Group, partnership. Available July 1978.

Joseph I. Matthews, M.D., 4708 Iris Street, Rockville, Maryland 20853. Creighton 1969. Subspecialty, pulmonary medicine. Board certified (IM). Group. September 1978.

Bgoki N. Kuppuswamy, M.D., 7507 Riverdale Road, Apt. 2057, New Carrollton, Maryland 20784. Madras (India) 1972. Subspecialty, nephrology. Board eligible (IM). Group, partnership, institutional. Available July 1978.

Thomas Y. Ko, M.D., 131 Sharbot Drive, Pittsburgh, Pennsylvania 15237. Taipei (Taiwan) 1972. Subspecialty, cardiology. Board eligible (IM). Group, partnership, solo (hospital-based). Available July 1978.

Richard A. Cole, M.D., 98 Sewall Ave., Apt. #I,

Brookline, Mass. 02146. Johns Hopkins 1974. Subspecialty, diabetes and endocrinology. Board certified. Solo, partnership, or group. Available July 1978.

John F. Jacobs, Jr., M.D., 429 Mannor St., Ann Arbor, Michigan 48105. Virginia 1973. Subspecialty, nephrology. Board certified. Group or hospital. Available July 1978.

Charles L. Starke, M.D., 4540 MacArthur Blvd., Washington, D.C. 20007. Einstein 1975. Board eligible. Partnership, single specialty group, multispecialty group. Available July 1978.

Duck Sung Chun, M.D., 910 Bellstone St., St. Louis, Mo. 63119. Seoul 1969. Subspecialty, cardiovascular diseases. Board certified. Institution, partnership, research. Available July 1978.

Jonathan Alexander, M.D., 1569 Boulevard, New Haven, Conn. 06511. Einstein 1973. Subspecialty cardiovascular diseases. Board certified. Institution, single specialty group, partnership. Available July 1978.

Romesh K. Japra, M.D., 440 Richard Park East, suite 407, Richmond Heights, Ohio 44143. India Institute of Medicine (New Delhi) 1971. Subspecialty, cardiovascular diseases. Board certified. Multispecialty group, partnership, solo, industrial. Available July 1978.

Thomas Y. Ko, M.D., 131 Sharbot Dr., Pittsburgh, Pa. 15237. Taipei (Taiwan) 1972. Subspecialty, cardiovascular diseases. Board certified. Partnership, solo, multispecialty group. Available July 1978.

Khalid R. Chaudry, M.D., 250 Beverly Blvd., Upper Darby, Pa. 19082. King Edward (Pakistan) 1971. Subspecialty, cardiovascular diseases. Board certified. Multispecialty group, single specialty group, partnership. Available July 1978.

Ricky Y. Ho, M.D., 230 Yonkers Ave., Yonkers, N.Y. 10701. Hong Kong 1970. Subspecialty, gastroenterology. Board certified. Single specialty group, multispecialty group, solo. Available July 1978.

Larry I. Good, M.D., 1450 Bittersweet Dr., Blackwood 08012. South Carolina 1973. Subspecialty, gastroenterology. Board certified. Partnership, single specialty group, multispecialty group. Available July 1978.

Rajkumar K. Warrier, M.D., 68-A Manhattan Court, Brooklyn, New York 11235. Calicut, Kerala (India) 1969. Subspecialty, gastroenterology. Board eligible. Institution, research, solo. Available June 1978.

Mary S. Vesoniaraki, M.D., 81 Somerset Ave., Garden City, N.Y. 11530. Athens 1967. Subspecialty, hematology. Board eligible. Institution, multispecialty group, single specialty group. Available July 1978.

Charles A. Henderson, M.D., 6341 Busch Blvd. Columbus, Ohio 43229. Pittsburgh 1973. Subspecialty, hematology. Board certified. Partnership, single specialty group, multispecialty group. Available July 1978.

Adrian A. Bianco, M.D., 6330 Lincoln Ave., Morton Grove, Ill. 60053. Del Salvador (Buenos Aires) 1971. Subspecialties, oncology, hematology. Board certified. Multispecialty group, institution, partnership. Available July 1978.

Carol M. Sholtis, M.D., 2532-F Heather Hills Rd., Toledo, Ohio 43614. Medical College of Ohio 1973. Subspecialty, oncology. Board certified. Single specialty group, multispecialty group, partnership. Available July 1978.

Robert S. Rudenstein, M.D., 275 Bryn Mawr Ave., Bryn Mawr, Pa. 19010. Pittsburgh 1973. Subspecialty, endocrinology. Board certified. Single specialty group, partnership, multispecialty group. Available July 1978.

Raymond J. Casciari, M.D., 2821 North Lowell Lane, Santa Ana, Ca. 92706. Temple 1973. Subspecialty, pulmonary diseases. Board certified. Single specialty group, partnership, solo. Available July 1978.

Stephen M. Kreitzer, M.D., 33 Pond Ave., Brookline, Mass. 02146. Einstein 1971. Subspecialty, pulmonary diseases. Single specialty group, multispecialty group, institution. Available July 1978.

Douglas G. Mufuka, M.D., 608 N. Cuyler Ave., Oak Park, Ill. 60302. SUNY 1973. Subspecialty, nephrology. Board eligible. Single specialty group, institution, multispecialty group. Available July 1978.

David T. Klein, M.D., 4750 Bedford Ave., Brooklyn 11235 (212-743-1839). Brussels 1975. Board eligible. Group or solo. Available July 1978.

Jo U. Choi, M.D., 165 Lyons Ave., Apt. C-6, Newark 07112. Seoul (Korea) 1968. Subspecialty, oncology. Board eligible. Solo, group, partnership, hospital. Available July 1978.

Frederick Lewis, M.D., 445 E. 68th Street, New York 10021. Albany 1971. Subspecialty, endocrinology. Board certified. Group, partnership, or solo. Available July 1978.

Edwin Kolodny, M.D., 60 E. Linden Ave., Englewood 07631. NYU 1973. Subspecialty, pulmonary diseases. Board certified. Group or partnership. Available July 1978.

Avelino S. B. Rosales, M.D., 155-12 79th Street, Howard Beach, New York 11414. Univ. of the East, 1972 (Philippines). Subspecialty, nephrology. Board eligible. Group. Available July 1978.

Mohammad Yusaf Sandhu, M.D., Troy Towers, Apt. 1801, Mountain Road, Union City 07087. King Edward (Lahore, Pakistan). Subspecialty, cardiology. Group, partnership, solo. Available.

Mohammad S. Choudhry, M.D., 1523 Central Park Avenue, Yonkers, New York 10710. Nishtar (Pakistan). Subspecialty, cardiology. Board certified (IM). Solo or partnership. Available July 1978.

Bharti Desai Eanni, M.D., 23 Wedgewood Circle, Eatontown 07724. Grant Medical College (India) 1973. Group, partnership, hospital practice. Available.

Marc A. Goldman, M.D., 2413 Elmington Drive, Richmond, Virginia 23233. NYU 1973. Subspecialty, Gastroenterology. Board certified (IM). Group or partnership. Available July 1978.

Soo Woong Park, M.D., 4718 Kenmore Avenue, Apt. 303, Alexandria, Virginia 22304. Seoul (Korea) 1969. Subspecialty, nephrology. Board certified (IM). Group or solo. Available July 1978.

NEUROLOGY – Wook Chung, M.D., 950 49th Street, Apt. 6-J, Brooklyn, New York 11219. Catholic Medical College (Korea) 1967. Group, partnership, or solo. Available July 1978.

N. D. Karmali, M.D., c/o Daniel Boone Clinic, Harlan, Kentucky 40831. T.N. Medical College, Bombay (India) 1971. Board eligible. Partnership or group. Available January 1978.

Harold P. Wittcoff, M.D., 8842 Meadowbrook Drive, Pensacola, Florida 32501. Georgetown 1969. Board eligible. Group or partnership. Available.

Theodore G. Probst, M.D., 10 Waterside Plaza, New York City 10010. Jefferson 1971. Board eligible. Partnership, single specialty group, multispecialty group. Available July 1978.

OBSTETRICS/GYNECOLOGY – Daniel W. Shapiro, M.D., 6812 Criner Rd., Huntsville, Ala. 35802. NYU 1971. Board eligible. Single specialty group, partnership, multispecialty group. Available August 1978.

Akbar Omar, M.D., 85 Riverdale Ave., Yonkers, N.Y. 10701. Dow Medical (Pakistan) 1972. Board eligible. Multispecialty group, partnership, solo. Available July 1978.

Leonard Weather, Jr., M.D., 601 N. Broadway, Baltimore 21205. Rush 1974. Board eligible. Solo, research, partnership, single specialty group, institution, multispecialty group. Available July 1978.

Kenneth A. Desandies, M.D., 668 Lenox Rd., Brooklyn, NY 11203. Meharry 1973. Board eligible. Multispecialty group, single specialty group, partnership. Available August 1978.

Fa-Tsair Shieh, M.D., 808 Massachusetts Ave., Luray, Virginia 22835. China Medical (Taiwan) 1970. Board eligible. Solo, associate, group. Available.

D. Chakrabarty, M.D., 74 Fairview Avenue, Great Neck, New York 11023. University of Calcutta (India) 1956. Board certified. Group or partnership. Available.

Surinder Kumar, M.D., 751 Parkdale Avenue, Apt. 502, Ottawa, Ontario K1Y-1J7, Canada. Agra (India) 1969. Board eligible. Partnership or multispecialty. Available.

OCCUPATIONAL MEDICINE – Louis Z. Fauteux, Jr., M.D., Twinbridge Apts., No. 344F, Penns Grove 08069. Georgetown 1947. Board certified (IM). Industrial medicine. Available.

ONCOLOGY – Ramesh K. Shah, M.D., 1882 Manor Drive, Union 07083. Baroda (India). Group or solo. Available July 1978.

OPHTHALMOLOGY – Dion R. Ehrlich, M.D., 5148-A Long Branch Lane, Columbus, Ohio 43213. George Washington 1973. Board eligible. Single specialty group, partnership, solo. Available July 1978.

Miguel Pro, M.D., 801 Cooper Landing Rd., Cherry Hill 08002. Cayetano Heredia (Lima, Peru) 1972. Board eligible. Institution. Available January 1978.

Kenneth J. Wolf, M.D., 3555 Bainbridge Ave., Bronx, N.Y. 10467. Einstein 1974. Board eligible. Solo, group. Available July 1978.

Clark Robert Cobble, M.D., 3843 Eagle Heights, Clinton, Iowa 52732. Vanderbilt 1970. Any type practice. Available September 1978.

ORTHOPEDIC SURGERY – Alfred C. Lotman, M.D., 1640 Johnson Avenue, Apt. 162-B, Petersburg, Virginia 23801. Tulane 1971. Board certified. Group. Available.

OTOLARYNGOLOGY – Jeffrey M. Rosenbaum, M.D., 1575 Center Avenue, Apt. 3-D, Fort Lee 07024. Albany 1973. Partnership or group. Available July 1978.

OTORHINOLARYNGOLGY – Jong Ho Won, M.D., 1808 Rambling Ridge Lane, Apt. 102, Baltimore, Maryland 21209. Korea 1966. Board eligible. Group, solo, or partnership. Available July 1978.

PATHOLOGY – Kanchan A. Shimpi, M.D., 1 Hospital Dr., Cheverly, Md. 20785. B.J. Medical (India) 1969. Board eligible. Institution, multispecialty group, single specialty group. Available 1978.

PEDIATRICS – Winston A. Rajasingham, M.D., 2620 Ocean Parkway, Apt. 4-F, Brooklyn, New York 11235. Sri Lanka (Ceylon) 1968. Group, partnership, associate. Available.

Joseph M. Chettupuzha, M.D., 21 Heywood Street, Apt. 2-D, Worcester, Massachusetts 01604. KMC (India) 1973. Group or partnership. Available July 1978.

Leo P. Pajarillo, M.D., 2503-A Atlas Drive, Rome, New York 13440. Cebu (Philippines) 1968. Board eligible. Group, partnership, solo. Available July 1978.

Reynaldo G. Maniago, M.D., 784-A Bayshore Dr., MacDill AFB, Tampa, Fla. 33621. University of the East (Philippines) 1971. Also general practice. Board eligible. Solo, multispecialty group, single specialty group, partnership, emergency room, institution. Available July 1978.

An-Shuang Tsai, M.D., 1255 Pennsylvania Ave., Apt. 8-D, Brooklyn 11239. Kaoshiung Medical 1971. Subspecialty, hematology. Board eligible. Group, partnership, hospital. Available July 1978.

Vojislava C. Russo, M.D., 532 E. Wimbledon Dr., Charleston S.C. 29412. Downstate 1973. Board eligible. Group, partnership, hospital. Available July 1978.

Prasao C. Kakarala, M.D., 7545 E. Treasure Dr., Apt. 4-J, Miami Beach, Fla. 33141. Rangaraya Medical (India) 1971. Board eligible. Group, partnership, solo, clinic, multispecialty group.

Asuncion M. Macasinag, M.D., 96 Fleet Pl., Mineola, N.Y. 11501. Santo Tomas (Philippines) 1971. Board eligible. Any type of practice. Available July 1978.

Charles R. Bushong, Jr., M.D., 1560 N. Prospect Avenue, Apt. 808, Milwaukee, Wisconsin 53202. Columbia 1973. Any type practice. Available July 1978.

Charles F. Kelley, Jr., M.D., 3854 Delco Road, Pittsburgh, Pennsylvania 15227. Pittsburgh 1975. Board eligible. Any type practice. Available July 1978.

Shahid N. Khan, M.D., 3245 Belle Court, Royal Oak, Michigan 48072. King Edward (Pakistan) 1973. Subspecialty, neonatology. Board eligible. Hospital-based neonatology or group. Available July 1978.

PULMONARY DISEASES—A. Shanmuganathan, M.D., 394 Tremont Ave., B-1, East Orange 07018. Ceylon 1972. Group, partnership, solo. Available July 1978.

RADIOLOGY—Devchand V. Patel, M.D., 1100 Parsippany Blvd., Parsippany 07054. B.J. Medical (India) 1962. Diagnostic radiology. Board eligible. Single specialty group. Available July 1978.

Arturo E. Macasinag, M.D., 96 Fleet Pl. Mineola, N.Y. 11501. Santo Tomas (Philippines) 1971. Board eligible. Any type of practice. Available July 1978.

SURGERY—Yahya O. Labban, M.D., 9303 Hammerly, Apt. 703, Houston, Texas 77080. French Faculty, Beirut (Lebanon) 1955. Subspecialty, general practice. Board eligible (Surgery) Group, solo. Available.

Eugene P. Russo, M.D., 532 E. Wimbledon Dr., Charleston, S.C. 29412. Georgetown 1971. Board eligible. Group, partnership, hospital. Available July 1978.

Howard Floch, M.D., 255 E. 23rd St., New York City 10010. Hahnemann 1972. Board eligible. Subspecialty, peripheral vascular with non-cardiac thoracic. Partnership or group involving residency training program. Available July 1978.

Andrew Grimes, M.D., 301 E. 48th St., Apt. 9-B, New York City 10017. Harvard 1972. Partnership, associate, group. Available July 1978.

Arnold W. Berlin, M.D., 305 Zion St., Hartford, Conn. 06106. NYU 1972. Board eligible. Group, partnership, solo. Available July 1978.

Steven R. Hofstetter, M.D., 932 Van Court Ave., Elberon 07740. Upstate Medical 1971. Board eligible. Partnership, single specialty group, multispecialty group. Available June 1978.

Ajmal Sobhan, M.D., 7703 21st Ave., Jackson Heights, N.Y. 11370 Dacca (Pakistan) 1972. Subspecialty, cardiovascular surgery. Board eligible. Partnership, single specialty group, multispecialty group. Available July 1978.

Kamalakar R. Ayyagari, M.D., 555 Mt. Prospect Ave., Apt. 10-G, Newark 07104. Gandhi (India) 1967. Board eligible. Solo, partnership, multispecialty group. Available July 1978.

Carlos J. Jimenez, M.D., 543 Riley St., Buffalo, N.Y. 14208. Barcelona 1971. Board eligible. Multispecialty group, single specialty group, partnership. Available July 1978.

Michael F. Nigro, M.D., 445 E. 68th St., Apt. 5-D, New York City 10021. Cornell 1970. Subspecialty, head and neck surgery. Board eligible. Single specialty group, partnership, multispecialty group. Available July 1978.

Ronald B. Greene, M.D., 4625 Cutlass Dr., Englewood, Ohio 45322. Temple 1972. Subspecialty. orthopedic surgery. Board eligible. Single specialty group, partnership, multispecialty group. Available July 1978.

Jeffrey H. Phillips, M.D., 3450-23 Wayne Ave., Bronx, N.Y. 10467. Einstein 1974. Subspecialty, orthopedic surgery. Board eligible. Single specialty group, partnership, solo. Available July 1978.

Roger A. Evans, M.D., 316 Wilderness Rd., Hampton, Va. 23669. SUNY 1970. Subspecialty, urological surgery. Board eligible. Single specialty group, multispecialty group, partnership. Available July 1978.

Richard Dias, M.D., 1090 Amsterdam Ave., Apt. 13-G, New York City 10025. Bangalore (India) 1969. Subspecialty, urological surgery. Board eligible. Available June 1978.

Alan H. Lieberman, M.D., 706 Schiller Ave., Narberth, Pa. 19072. Pennsylvania 1971. Subspecialty, urological surgery. Board eligible. Single specialty group, partnership, multispecialty group, solo. Available July 1978.

Lawrence J. Yodlowski, M.D., 2532-F Heather Hills Rd., Toledo, Ohio 43614. Medical College of Ohio 1973. Subspecialties, urological surgery and emergency medicine. Single specialty group, multispecialty group, partnership.

Noel T. Hui, M.D., 708 Choctaw Dr., Eglin AFB, Florida 32542. National Defense Medical Center (Taiwan) 1970. Subspecialty, urological surgery. Board eligible. Single specialty group, multispecialty group, solo. Available July 1978.

Richard O. Healy, M.D., 2793 Agricola St., Halifax, B3K, 4E3, Nova Scotia, Canada. University College (Dublin, Ireland) 1970. Subspecialty, urological surgery. Board eligible. Single specialty group, partnership, research. Available January 1978.

T. R. A. Adaniel, M.D., 310 West 56th St., New York City 10019. Santo Tomas (Philippines) 1964. Board certified. Solo or Group. Available.

Manuel S. Dijamco, M.D., 906 Main St., Riverton 08077. Manila Central (Philippines) 1965. Board eligible. Solo or partnership. Available July 1978.

UROLOGY—E. Unnikrishnan, M.D., 1895 Belmore Road, East Cleveland, Ohio 44112. Calicut (India). Group, partnership, solo. Available.

Michael Barr, M.D., 3450-10 Wayne Avenue, Bronx, New York. SUNY (Downstate) 1972. Solo or partnership. Available July 1978.

Modesto S. Rivera, III, M.D., 2529 Flowering Tree Lane, Gambrills, Maryland 21054. Philippines 1971. Board eligible. Group or partnership. Available July 1978.

Ned B. Stein, M.D., 12000 Fairhill Road, Cleveland, Ohio 44120. Bowman-Gray 1973. Board eligible. Group or partnership. Available July 1978.

Housing Application

212th Annual Meeting

The Medical Society of New Jersey

May 6–9, 1978

	DAILY RATES		
	Single	Twin	Suites
Holiday Inn	$30	$36	Rates quoted upon
(MSNJ Headquarters)	38	44	request
	46	52	
Howard Johnson's	$30	$36	Rates quoted upon
(Auxiliary Headquarters)	38	44	request
	46	52	

If room is not available at rate requested, next available rate will be assigned

Mail this application directly to the Atlantic City Convention Bureau
16 Central Pier
Atlantic City, N. J. 08401

Please list 1st and 2nd choice; confirmation will come directly from hotel.

1st Choice _____ 2nd Choice _____

Accommodations desired: ☐ Single ☐ Twin ☐ Suite Parlor & 1 Bedroom ☐ Suite Parlor & 2 Bedrooms

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____

Will arrive _____ (DATE) Time _____ Will depart _____ (DATE) Time _____

☐ Check if Official Delegate _____ County

LETTERS TO THE JOURNAL

Rectal Examination for Prostatic Carcinoma: Another View

October 13, 1977

Re: *Program for Risk Factor Modification and Selective Screening for Ostensibly Healthy Adults*—D. B. Louria, M.D. *et al.* (*J Med Soc NJ* 74: 759-767, 1977)

Gentlemen:

Dr. Louria and his associates have, as usual, been provocative in their comments concerning risk factor modification in screening healthy adults. Many of their proposals are timely and medically sound. As part of their presentation in your September 1977 issue however they make the statement that it is "unclear whether the detection of a prostatic nodule really makes any difference to the patient." They conclude their section on the advisability of rectal examination for prostatic or rectal cancer with the statement that "if the rectal examination is to be done it is reasonable to recommend this kind of examination once every three years after the age of 50." Both these statements are at best somewhat shortsighted. Prostatic cancer is a ubiquitous disease. It may be true that none of our present modalities of therapy alters the length of survival in any stage of this disease process. It is true that in some instances prostatic cancer is a very slow-growing disease, but it is definitely a malignant disease which will cause the patient's death in time. Although a large percentage of the male adult population over the age 50 will be found to have *microscopic* evidence of prostatic cancer at autopsy, this does not imply that the detection of a locally confined prostatic cancer on physical examination may not change from a potentially curable lesion into a locally advanced lesion over the proposed course of a three-year examination interval.

The fact that no particular form of therapy in prostatic cancer can be shown statistically to improve survival in any stage of prostatic cancer should not be extrapolated to suggest that we should stop trying to find the correct approach to this problem. It also should not be construed by the patient and his local physician to mean that, because the patient may have a prostatic cancer which is detectable on physical examination, there is nothing that can be done either to aid his quality of life or ultimate survival.

In summary it is somewhat shortsighted for any of us in the medical profession to recommend against a simple, quick, efficient, and inexpensive method of diagnosis and cancer detection such as rectal examination without offering some better alternative. It seems inconceivable for us in the medical profession in this age of self-induced cost overruns to turn away from this valuable diagnostic tool and instead put attention and focus on some of the outlandish and outrageously expensive diagnostic modalities which are coming to the fore in our profession.

(signed) Terry W. Hensle, M.D.
Director, Pediatric Urology

(signed) Ralph J. Veenema, M.D.
Professor of Clinical Urology
Columbia-Presbyterian Medical Center, New York

Another Warning

November 12, 1977

Dear Editor:

I consider Dr. Joseph Donnelly's letter which was published in the October 1977 issue of *The Journal* of the Medical Society of New Jersey as a strong warning to members of our profession to guard against further inroads into the practice of medicine by paramedical groups.

When Dr. James Rogers proposed the resolution for the establishment of physicians' assistants in the House of Delegates of the Medical Society of New Jersey May 1970, I most strongly spoke against it. I warned the delegates then, that, "Instead of facing up to the problem of providing more and better

family doctors, it has been proposed to have a short cut and stop-gap solution by creating a new corps of licensed medical assistants. This would be a blunder which would be regretted and once started would be difficult to remove." This is quoted from *The Journal* of the Medical Society of New Jersey (68: 15, January 1971).

I warned then, that they would demand licensure and would ultimately organize as an independent pressure group to obtain more and more privileges to invade the practice of medicine. I also urged against calling them physicians' assistants as that would connote to the laity that they were physicians. I even suggested the term medical technicians instead. Under the guise of functioning under the supervision of a physician they have been gradually assuming more medical activities.

What does a busy physician, who employs such an assistant do, if his office is full of patients and an urgent call comes in? Does he send out his assistant and request payment for the call from the Blue Cross? I warned the officials of the Nurses' Association that Physician Assistants will take over many of the positions now held by nurses. I have read in some report that the Prudential Insurance Co. has paid more than $650,000 for examinations of their insurance applicants to examiners other than physicians in one year. Let us be on guard against further inroads on medical practice.

(signed) Henry A. Brodkin, M.D.

Laughing Gas Update

16 November 1977

Re: Laughing Gas No Laughing Matter
(*J Med Soc NJ* 74:932, November 1977)

Dear Editor:

Most of us are so busy we have difficulty keeping up with developments in our own specialty area, much less with such far-removed matters as government regulatory actions. Since this *is* my specialty, I thought I would comment on and update your interesting and very relevant editorial cited above.

In May 1976, then-President Gerald Ford signed Public Law 94-295, the Medical Device Amendments to the Food, Drug, and Cosmetic Act. The law extended to medical instruments and devices a type of government overseer authority such as has existed for pharmaceutical products for many years.

Interestingly enough, one of the first problems addressed by the Food and Drug Administration and the various committees that are instantly formed to discuss the details of promulgating regulations that inevitably emanate in immeasurable quantity after the passage of "enabling legislation" was the matter of standardizing and setting standards for (not equivalent statements! Reflect a moment. . . . .) anesthetic-gases equipment. I believe that this particular committee, headed by the very able Dr. Randall-Smith, has considered the possibility of establishing non-interchangeable connector fittings for the different types of gases. Such a step would be helpful in preventing such accidents as you described in your article, though I personally do not believe that mankind has ever devised any legislation that could supersede human error or prevent human carelessness . . . . . especially since the legislation itself is designed by humans subject to the same frailties. But I did wish to be informative, not philosophical, and thought it might be interesting to your readers to know that someone is aware of the problem you brought up, and trying at least to minimize it.

(signed) Donald J. Flaster, M.D., LL.B.

212th Annual Meeting
May 6-9
Atlantic City

ANNOUNCEMENTS

Conferences in Hawaii

Under the auspices of the Medical Communications and Services Association, a non-profit organization involved in interdisciplinary communications, conferences, and research, two conferences have been arranged for assembly in Hawaii. From February 19 to 24, at the Kona Surf Hotel, Kona, Hawaii, there will be a seminar on "Advances in Patient Care: Caring for the Older Person." Thirty credit hours will be given in Category I of the AMA Physician's Recognition Award. The second conference convenes on February 26 and runs through March 3 at the Sheraton-Molokai Resort, Molokai, Hawaii. The topic is "Clinical Management of Sexual Problems" and 25 credit hours in Category I of the AMA Recognition Award will be granted. For information please communicate with Ruth Jacobson, Conference Coordinator, MCSA, 1107 NE 45th Street, Suite 315, Seattle, Washington 98105.

New Orleans Graduate Medical Assembly

From March 31 through April 4 the New Orleans Graduate Medical Assembly will be held at the Fairmount in New Orleans. Theme for the scientific program is "The High Risk Patient" and included in the schedule are a trauma symposium and clinicopathologic conferences. Scientific and technical exhibits will be presented. Physicians attending the scientific sessions of this Assembly will be considered as having met the criteria for the AMA's Category I Physician's Recognition Award. Application for credit hours has been made also to the American Academy of Family Physicians and to the American College of Emergency Physicians. For additional information, please communicate with Ms. Lois Neary, Executive Director, The New Orleans Graduate Medical Assembly, 1430 Tulane Avenue, New Orleans, Louisiana 70112.

Retraining Program for Physicians

The Medical College of Pennsylvania is offering an eight-week retraining program for clinically inactive physicians who wish to reenter clinical medicine. The course will be given at the College from April 17 to June 9 and runs from 8 a.m. to 5 p.m. on weekdays, with optional conferences on Saturdays and Sundays. Initial sessions will include a basic review of medical history, physical examination, and problem formulation. There also will be small group tutorials, clinical rotations, didactic sessions and discussions on current medical practice by organ systems, with emphasis on diagnosis and therapy. Tuition is $1,800 and the program is approved for AMA Category I credit. For application and additional information, please write to Retraining Program for Inactive Physicians, Office of Medical Education, The Medical College of Pennsylvania, 3300 Henry Avenue, Philadelphia.

Harvard Programs in Health Management

Harvard University announces the following two executive education programs in health management for 1978:

Health Systems Management—June 18 to July 28—Designed for senior managers in health care delivery—Application due March 15

Management Development Program in Health—April 2 to 20—Designed for mid-level managers in health care delivery—Application due February 7

The curricula of the two programs differ insofar as they are designed to address the needs of executives at different stages in their career development. Included are courses in financial management, marketing management, control, health economics, legal issues, organizational issues, health services, operations management, labor relations, and institutional policy and strategy. The faculty have been drawn from the Harvard graduate schools of Public Health, Business, and Medicine. Applicants must be sponsored by their employer organizations, which are responsible for the program fees. Inquiries should be addressed to the Administrative Director, PHSM/MDPH, Executive Programs in Health Policy and Management, Harvard School of Public Health, 677 Huntington Avenue, Boston, Massachusetts 02115.

MEETINGS OF MEDICAL INTEREST

This listing is compiled through the cooperation of the Committee on Medical Educàtion of The Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s), indicated by italics—last line of each item.

Jan.

16 Neuroscience Conferences
23 11:30 a.m.-12:30 p.m.—Bergen Pines County Hospital
30 Paramus
(Bergen Pines County Hospital and AMNJ)

16 Pyelonephritis: Peri-Nephric Infections
19 Bladder Infections
23 Mass Lesions of the Kidneys
26 Acute Renal Failure
30 Chronic Nephrosis
5-6 p.m.—St. Francis Medical Center, Trenton
(St. Francis Medical Center)

17 Neuropharmacology of Depression
8-9 a.m.—Garden State Community Hospital
(Garden State Community Hospital and AMNJ)

17 Northern Regional Chest Conferences
7:30-9:30 p.m.—Mountainside Hospital, Montclair
(New Jersey Thoracic Society and AMNJ)

17 Pulmonary Embolism
12 noon—St. Mary's Hospital, Orange
(AMNJ and AAFP)

17 Role of Anesthesiologists in an Ambulatory Surgical Unit
8-9 p.m.—Ramada Inn, Clark
(NJ State Society of Anesthesiologists and AMNJ)

18 Special Problems in Neurology
7-10 p.m.—VA Hospital, East Orange
(VA Hospital and AMNJ)

18 Advanced Life Support in CPR
1 p.m.—Trenton Psychiatric Hospital
(AMNJ and AAFP)

18 Medical Humanism—Hospital Ethics
3:15 p.m.—Fair Oaks Hospital, Summit
(AMNJ and AAFP)

18 Rectal Cancer
1-3 p.m.—Christ Hospital, Jersey City
(Christ Hospital and AMNJ)

18 Anesthesia—Target Defendant
7:30-9:30 p.m.—Washington Crossing Inn, Pa.
(Mercer Medical Center and AMNJ)

18 Sleep Disorders—Part I
1-2 p.m.—VA Hospital, Lyons
(VA Hospital and AMNJ)

18 Psychiatry—Special Patient Syndrome
1:15-2:45 p.m.—Marlboro Psychiatric Hospital
(Marlboro Psychiatric Hospital and AMNJ)

18 Mitral Prolapse: Current Concepts
25 Electrophysiologic Techniques in the Management of Arrhythmias
10-11:30 a.m.—St. Michael's Medical Center, Newark
(St. Michael's Medical Center and AMNJ)

18 Advances in Medicine
25 9:30-11 a.m.—Bergen Pines County Hospital, Paramus
(Bergen Pines County Hospital and AMNJ)

18 Cardiology Conferences
4-6 p.m.—Rutgers Medical School, Piscataway
(CMDNJ and AMNJ)

18 Psychiatry
25 1-3 p.m.—Ancora Psychiatric Hospital, Hammonton
(Ancora Psychiatric Hospital and AMNJ)

19 Pediatric Allergy Course
26 11 a.m.-12 noon—Children's Hospital of Newark
(Children's Hospital of Newark and AMNJ)

19 Current Concepts in Modern Biology
26 4-6 p.m.—Institute for Medical Research, Camden
(Institute for Medical Research and AMNJ)

19 Urinary Tract Infections
11:45 a.m.—Kennedy Medical Center, Edison
(Eaton Laboratories and Kennedy Medical Center)

19 Cellular Engineering in Medicine
5-6:30 p.m.—Somerset Hospital, Somerville
(Somerset Hospital and AMNJ)

19 Advances in Nephrology
6:15 p.m.—Bridgeton Hospital
(Bridgeton Hospital)

24 Allergy
8 p.m.—Warren Hospital, Phillipsburg
(AMNJ and AAFP)

24 Choledocoduodenostomy
8-10 p.m.—Englewood Men's Club
(Englewood Surgical Association and AMNJ)

24 External Diseases of the Eye and Endophthalmitis
12:30-3:30 p.m.—Garden State Community Hospital
Marlton
(Garden State Community Hospital and AMNJ)

25 Medical Ophthalmology
1-3 p.m.—Christ Hospital
(Christ Hospital and AMNJ)

25 Evaluation of Hemorrhagic and Bleeding Disorders
1-2 p.m.—VA Hospital, Lyons
(VA Hospital and AMNJ)

25 **Inflammatory Bowel Disease**
(Albert Siegel Memorial Seminar)
1 p.m. – St. Barnabas Medical Center, Livingston
(*St. Barnabas Medical Center and AMNJ*)

26 **Office Management of Common Gastrointestinal Problems**
11:45 a.m. – Kennedy Medical Center, Edison
(*Searle Laboratories and Kennedy Medical Center*)

27 **Cardiac Arrhythmias**
12:30 p.m. – Hamilton Hospital, Trenton
(*AMNJ and AAFP*)

28 **CME Program**
8-10 a.m. – Newcomb Hospital, Vineland
(*University of Pennsylvania School of Medicine and AAFP*)

28 **Seminar on Mysticism and Adolescence**
9 a.m.-12:30 p.m.
28 **The Medical World of Thomas Rowlandson**
9-10 p.m.
29 **Adolescence in a Psychiatric Family**
11:30 a.m.-1:30 p.m. – Great Gorge Resort Hotel
(*New Jersey Psychiatric Association and AMNJ*)

Feb.

1 **Cardiology Conferences**
15 4-6 p.m. – Rutgers Medical School, Piscataway
(*CMDNJ and AMNJ*)

1 **Advances in Medicine**
8 9:30-11 a.m. – Bergen Pines Hospital, Paramus
15 (*Bergen Pines County Hospital and AMNJ*)
22

1 **Cerebral Vascular Disease**
1 p.m. – Christ Hospital, Jersey City
(*AMNJ and AAFP*)

1 **Total Joint Replacement and Bone Tumors**
8 **Lithium and Affective Disorders**
15 **Dermatologic Manifestations of Systemic Diseases**
22 **Infection in the Compromised Host**
9-11 a.m. – Riverview Hospital, Red Bank
(*Riverview Hospital, AMNJ and AAFP*)

1 **Psychiatry**
7 1-3 p.m. – Ancora Psychiatric Hospital, Hammonton
15 (*Ancora Psychiatric Hospital and AMNJ*)

1 **Coronary Artery Disease**
8 **Assynergy in Coronary Heart Disease – 1978**
15 **New Aspects of Echocardiography**
22 **High Density Lipoproteins**
10-11:30 a.m. – St. Michael's Medical Center, Newark
(*St. Michael's Medical Center and AMNJ*)

1 **Lectures in Obstetrics/Gynecology**
6-10 p.m. – 141 S. Harrison St., E. Orange
(*New Jersey Medical School and AMNJ*)

1 **Management of the Hypertensive**
1:15-2:45 p.m. – Marlboro Psychiatric Hospital
(*Marlboro Psychiatric Hospital and AMNJ*)

2 **Psychiatric Study**
8-10 p.m. – 312 Harding Drive, South Orange
(*Group for Advanced Psychiatric Study and AMNJ*)

2 **Current Concepts in Modern Biology**
9 4-6 p.m. – Institute for Medical Research, Camden
16 (*Institute for Medical Research and AMNJ*)
23

2 **Care of the Aged Post-Hip Fracture Patient**
2-4 p.m. – Daughters of Miriam Center, Clifton
(*Daughters of Miriam Center for the Aged and AMNJ*)

2 **Pediatric Allergy Course**
9 11 a.m.-12 noon – Children's Hospital of Newark
16 (*Children's Hospital of Newark and AMNJ*)
23

2 **Infectious Disease Course**
8:30-9:30 a.m. – Somerset Hospital, Somerville
(*Somerset Hospital and AMNJ*)

2 **Diabetes**
11 a.m. – Greystone Park Psychiatric Hospital
(*AMNJ and AAFP*)

3 **Proper Uses of Blood Gases**
8:30 a.m. – United Hospitals of Newark
(*AMNJ and AAFP*)

3-5 **Basic Clinical Electrocardiography and Arrhythmia Management**
Playboy Resort, Great Gorge
(*International Medical Education Corporation and AAFP*)

6 **Neuroscience Conferences**
13 11:30 a.m.-12:30 p.m. – Bergen Pines County Hospital
20 Paramus
27 (*Bergen Pines County Hospital and AMNJ*)

6 **Headache**
8 p.m. – Community Memorial Hospital, Toms River
(*AMNJ and AAFP*)

7 **Complications of Vascular Surgery**
5-6 p.m. – Rutgers Medical School, Piscataway
(*Rutgers Medical School and AMNJ*)

7 **Neonatal Emergencies**
9 a.m. – Freehold Area Hospital
(*AMNJ and AAFP*)

8 **Peripheral Vascular Disease**
11:30 a.m. – Rahway Hospital
1:30 p.m. – John E. Runnells Hospital, Berkeley Heights
(*AMNJ and AAFP*)

8 **Sleep Disorders – Part II**
1-2 p.m. – VA Hospital, Lyons
(*VA Hospital and AMNJ*)

8 **Psychiatric Malpractice**
1:15-2:45 – Marlboro Psychiatric Hospital
(*Marlboro Psychiatric Hospital and AMNJ*)

8 **Ophthalmic Problem-Solving in Medical Practice**
1-3 p.m. – Christ Hospital
(*Christ Hospital and AMNJ*)

9 **The Author's Life as a Symbol**
8:30-10:30 p.m. – Hackensack Hospital
(*New Jersey Psychoanalytic Society and AMNJ*)

11 **CME Program**
25 8-10 a.m. – Newcomb Hospital, Vineland
(*University of Pennsylvania School of Medicine and AAFP*)

11 **Seminar in Anesthesiology**
9 a.m.-3 p.m. – New Jersey Medical School, Newark
(*Educational Council for Anesthesiology of NJ and AMNJ*)

14 **Hyponitremia: Hypokalemia**
8 p.m. – Paul Kimball Hospital, Lakewood
(*AMNJ and AAFP*)

14 **Evaluation and Treatment of the Dizzy Patient**
6-10 p.m. – Englewood Hospital
(*Bergen County Society of Otolarngologists and AMNJ*)

14 **Emergency Room Dermatology**
8-10 p.m. – Schering Corporation, Kenilworth
(*New Jersey Dermatological Society and AMNJ*)

15 **Medical Humanism – Hospital Ethics**
1 p.m. – Trenton Psychiatric Hospital
(*AMNJ and AAFP*)

15 **Update on Clinical Psychopharmacology**
1-2 p.m. – VA Hospital, Lyons
(*VA Hospital, Lyons and AMNJ*)

16 **Psychiatric Emergencies**
9-10 p.m. – Woodbury Country Club
(*Gloucester County Medical Society and AMNJ*)

16 **Appropriate Workup for the Headache Patient**
5-6:30 p.m. – Somerset Hospital, Somerville
(*Somerset Hospital and AMNJ*)

16 **Problems in Biliary Tract Surgery**
6:15 p.m. – Bridgeton Hospital
(*Bridgeton Hospital*)

17 **Laboratory Interpretations**
5 p.m. – Holiday Inn, Deepwater
(*AMNJ and AAFP*)

17 **Endocrinology**
12 noon – Freehold Area Hospital
(*AMNJ and AAFP*)

20 **Current Surgical Techniques of Breast Cancer**
12 noon – Hospital Center at Orange
(*AMNJ and AAFP*)

20- **Endocrinology Symposium**
24 Nassau, Bahamas
(*CMDNJ, AMNJ and VA Hospital, East Orange*)

21 **Northern Regional Chest Conferences**
7:30-9:30 p.m. – St. Barnabas Hospital, Livingston
(*New Jersey Thoracic Society and AMNJ*)

21 **Cancer of the Colon and Ovary**
12 noon – St. Mary's Hospital, Orange
(*AMNJ and AAFP*)

24 **Carcinoma of the Breast**
12:30 p.m. – Hamilton Hospital, Trenton
(*AMNJ and AAFP*)

28 **Drug Addiction**
8 p.m. – Warren Hospital, Phillipsburg
(*AMNJ and AAFP*)

Mar.

1 **Proper Use of Blood Gases**
11:30 a.m. – Rahway Hospital
(*AMNJ and AAFP*)

1 **Fiberoptic Bronchoscopy**
1 p.m. – Christ Hospital, Jersey City
(*AMNJ and AAFP*)

1 **Lectures in Obstetrics/Gynecology**
6-10 p.m. – 141 S. Harrison St., E. Orange
(*New Jersey Medical School and AMNJ*)

1 **Cardiac Rehabilitation: A Three-Year Experience**
10-11:30 a.m. – St. Michael's Medical Center, Newark
(*St. Michael's Medical Center and AMNJ*)

1 **Current Concepts in Hypertension**
1-2 p.m. – VA Hospital, Lyons
(*VA Hospital, Lyons, and AMNJ*)

1 **Advances in Medicine**
8 9:30-11 a.m. – Bergen Pines County Hospital, Paramus
15 (*Bergen Pines County Hospital and AMNJ*)
22
29

1 **Cardiology Conferences**
15 4-6 p.m. – Rutgers Medical School, Piscataway
(*CMDNJ and AMNJ*)

1 **Courses for Psychiatrists**
8 8-10 p.m. – Hackensack Hospital
15 (*NJ Psychoanalytic Society and AMNJ*)

1 **Immunology in Clinical Medicine**
8 **Controversies in Breast Cancer**
15 **Acupuncture**
9-11 a.m. – Riverview Hospital, Red Bank
(*Riverview Hospital, AMNJ and AAFP*)

1 **Psychiatry**
15 1-3 p.m. – Ancora Psychiatric Hospital
20 (*Ancora Psychiatric Hospital and AMNJ*)

2 **Psychiatric Study**
8-10 p.m. – 312 Harding Drive, South Orange
(*Group for Advanced Psychiatric Study and AMNJ*)

2 Immunology
11 a.m. – Greystone Park Psychiatric Hospital
(*AMNJ and AAFP*)

2 Infectious Disease Course
8:30-9:30 a.m. – Somerset Hospital, Somerville
(*Somerset Hospital and AAFP*)

2 Pediatric Allergy Course
9 11 a.m.-12 noon – Children's Hospital of Newark
16 (*Children's Hospital of Newark and AMNJ*)
23

2 Current Concepts in Modern Biology
9 4-6 p.m. – Institute for Medical Research, Camden
16 (*Institute for Medical Research and AMNJ*)
23

3 Clinical Immunology
8:30 a.m. – United Hospitals of Newark
(*AMNJ and AAFP*)

3 Psychiatric Lecture Series
10 1:30-5 p.m. – Trenton Psychiatric Hospital
17 (*Trenton Psychiatric Hospital and AMNJ*)

6 Neuroscience Conferences
13 11:30 a.m.-12:30 p.m. – Bergen Pines County Hospital
20 Paramus
27 (*Bergen Pines County Hospital and AMNJ*)

6 Obstructive Lung Disease
8 p.m. – Community Memorial Hospital, Toms River
(*AMNJ and AAFP*)

7 Surgical Management of Cushing's Syndrome
5-6 p.m. – Rutgers Medical School, Piscataway
(*Rutgers Medical School and Academy of Medicine*)

New Tests in Laboratory Medicine
7 8-9 a.m.
14 12 noon-1 p.m.
21 8-9 a.m. – Garden State Community Hospital
Marlton
(*Garden State Community Hospital and AMNJ*)

8 1977 Update on Traditional and New Venereal Disease
1-3 p.m. – Christ Hospital, Jersey City
(*Christ Hospital, AMNJ, and AAFP*)

11 CME Program
25 8-10 a.m. – Newcomb Hospital, Vineland
(*University of Pennsylvania School of Medicine and AAFP*)

14 Cancer in New Jersey
8 p.m. – Paul Kimball Hospital, Lakewood
(*AMNJ and AAFP*)

14 Medical Care in Emergency Department
9 p.m. – Bayonne Hospital
(*AMNJ and AAFP*)

14 Medical/Legal Aspects of Medicine and Surgery
12 noon – Hospital Center at Orange
(*AMNJ and AAFP*)

14 Dermatologic Surgery
8-10 p.m. – Schering Corporation, Kenilworth
(*New Jersey Dermatological Society and AMNJ*)

15 Hypertension
8:30 a.m.-4:30 p.m. – Sheraton Inn, Newark Airport
(*Pfizer Pharmaceutical, St. Barnabas Medical Center, and AMNJ*)

15 Special Problems in Neurology
7-10 p.m. – VA Hospital, East Orange
(*VA Hospital and AMNJ*)

15 Diagnosis and Management of the Short Child
8:30-10 p.m. – 1257 Kensington Road, Teaneck
(*Bergen Co. Chapter, American Medical Women's Assn. and AMNJ*)

15 Proper Use of Antibiotics
1 p.m. – Trenton Psychiatric Hospital
(*AMNJ and AAFP*)

15 Drug Interactions
1-3 p.m. – Christ Hospital, Jersey City
(*Christ Hospital, AMNJ and AAFP*)

16 Sexual Counseling
6:15 p.m. – Bridgeton Hospital
(*Bridgeton Hospital*)

16 Emotional Management in Myocardial Infarction
5-6:30 p.m. – Somerset Hospital, Somerville
(*Somerset Hospital and AAFP*)

17 The Violent Patient
5 p.m. – Holiday Inn-Deepwater
(*AMNJ and AAFP*)

17 Diagnosis of Anemic Patient
12 noon – Freehold Area Hospital
(*AMNJ and AAFP*)

Edward Waters Gynecologic Conference
17 2-7 p.m.
18 8:30 a.m.-7 p.m.
19 9 a.m.-12:30 p.m.
} Resorts International Hotel, Atlantic City
(*CMDNJ, NJ Medical School and AMNJ*)

18 Emergency '78 – Sports Medicine and Sports Emergencies
Ninth Annual Meeting – Valley Hospital, Ridgewood
(*Valley Hospital*)

21 Scanning
12 noon – St. Mary's Hospital, Orange
(*AMNJ and AAFP*)

21 Congestive Heart Failure
8:30 p.m. – Marriott Motor Inn
Saddlebrook
(*Fair Lawn Memorial Hospital, AMNJ and AAFP*)

21 Northern Regional Chest Conferences
7:30-9:30 p.m. – St. Joseph's Hospital, Paterson
(*New Jersey Thoracic Society and AMNJ*)

24 **Bleeding Disorders**
12:30 p.m. – Hamilton Hospital, Trenton
(*AMNJ and AAFP*)

28 **Hepatitis**
8 p.m. – Warren Hospital, Phillipsburg
(*AMNJ and AAFP*)

29 **Cerebral Vascular Disease**
3 p.m. – Ancora Psychiatric Hospital, Hammonton
(*AMNJ and AAFP*)

29 **Blood Gases: Revisited**
1-3 p.m. – Christ Hospital, Jersey City
(*Christ Hospital and AMNJ*)

Apr.

3 **Neuroscience Conferences**
10 11:30 a.m.-12:30 p.m. – Bergen Pines County Hospital,
17 Paramus
24 (*Bergen Pines County Hospital and AMNJ*)

3 **Suicidology**
8 p.m. – Community Memorial Hospital, Toms River
(*AMNJ and AAFP*)

4 **New Developments in Scanning**
11 a.m. – Greystone Park Psychiatric Hospital
(*AMNJ and AAFP*)

5 **Advances in Medicine**
12 9:30-11 a.m. – Bergen Pines County Hospital, Paramus
19 (*Bergen Pines County Hospital and AMNJ*)
26

5 **Cardiology Conferences**
19 4-6 p.m. – Rutgers Medical School, Piscataway
(*CMDNJ and AMNJ*)

5 **Outpatient Management of Tuberculosis**
11:30 a.m. – Rahway Hospital
(*AMNJ and AAFP*)

5 **Suicidology**
1 p.m. – Christ Hospital, Jersey City
(*AMNJ and AAFP*)

5 **Courses for Psychiatrists**
12 8-10 p.m. – Hackensack Hospital
19 (*NJ Psychoanalytic Society and AMNJ*)
26

5 **Lectures in Obstetrics/Gynecology**
6-10 p.m. – 141 S. Harrison St., E. Orange
(*New Jersey Medical School and AMNJ*)

6 **Psychiatric Study**
8-10 p.m. – 312 Harding Drive, South Orange
(*Group for Advanced Psychiatric Study and AMNJ*)

6 **Current Concepts in Modern Biology**
4-6 p.m. – Institute for Medical Research, Camden
(*Institute for Medical Research and AMNJ*)

6 **Care of the Aged Arthritic Patient**
2-4 p.m. – Daughters of Miriam Center, Clifton
(*Daughters of Miriam Center for the Aged, AMNJ and AAFP*)

6 **Pediatric Allergy Course**
13 11a.m.-12 noon – Children's Hospital of Newark
20 (*Children's Hospital of Newark and AMNJ*)
27

6 **Infectious Disease Course**
8:30-9:30 a.m. – Somerset Hospital, Somerville
(*Somerset Hospital and AMNJ*)

7 **Infectious Diseases**
8:30 a.m. – United Hospitals of Newark
(*AMNJ and AAFP*)

7 **Psychiatric Lecture Series**
14 1:30-5 p.m. – Trenton Psychiatric Hospital
21 (*Trenton Psychiatric Hospital and AMNJ*)
28

8 **Orthopedic Symposium**
8 a.m.-4:30 p.m. – Rutgers Medical School,
Piscataway
(*Rutgers Medical School, and AMNJ*)

8 **CME Program**
22 8-10 a.m. – Newcomb Hospital, Vineland
(*University of Pennsylvania School of Medicine and AAFP*)

11 **Fluid and Electrolyte Balance**
12 noon – Hospital Center at Orange
(*AMNJ and AAFP*)

11 **Connective Tissue Diseases Including Vasculitis**
8-10 p.m. – Schering Corporation, Kenilworth
(*New Jersey Dermatological Society and AMNJ*)

11 **Complex Problems of the Biliary Tract**
5-6 p.m. – Rutgers Medical School, Piscataway
(*Rutgers Medical School, and AMNJ*)

12 **Proper Use of Blood Gases**
1:30 p.m. – John E. Runnells Hospital
Berkeley Heights
(*AMNJ and AAFP*)

12 **Psychiatry**
17 1-3 p.m. – Ancora Psychiatric Hospital, Hammonton
19 (*Ancora Psychiatric Hospital and AMNJ*)
26

18 **Northern Regional Chest Conferences**
7:30-9:30 p.m. – Location to be announced
(*New Jersey Thoracic Society and AMNJ*)

18 **Intra-Aortic Balloon Pumping**
12 noon – St. Mary's Hospital, Orange
(*AMNJ and AAFP*)

19 **The Psychodynamics of Dental Practice**
9 a.m.-4 p.m. – New Jersey Dental School, Newark
(*AMNJ and CMDNJ*)

19 **Special Problems in Neurology**
7-10 p.m. – VA Hospital, East Orange
(*VA Hospital and AMNJ*)

20 **Nevi and Melanoma**
6:15 p.m. – Bridgeton Hospital
(*Bridgeton Hospital*)

20 **Hypertension – Old and New Concepts**
5-6:30 p.m. – Somerset Hospital, Somerville
(*Somerset Hospital and AMNJ*)

21 **Management of Hepatitis**
12 noon – Freehold Area Hospital
(*AMNJ and AAFP*)

22 **Seminar in Anesthesiology**
9 a.m.-3 p.m. – Saint Barnabas Medical Center
Livingston
(*Educational Council for Anesthesiology of NJ and AMNJ*)

25 **Medical/Legal Aspects of Medicine and Surgery**
8 p.m. – Warren Hospital, Phillipsburg
(*AMNJ and AAFP*)

26 **General Problems in Psychiatry**
1:15-2:45 p.m. – Marlboro Psychiatric Hospital
(*Marlboro Psychiatric Hospital and AMNJ*)

28 **Surgical Management of Inflammatory Bowel Disease**
12:30 p.m. – Hamilton Hospital, Trenton
(*AMNJ and AAFP*)

May

1 **Neuroscience Conferences**
8 11:30 a.m.-12:30 p.m. – Bergen Pines County Hospital
15 Paramus
22 (*Bergen Pines County Hospital and AMNJ*)

1 **Arthritis**
8 p.m. – Community Memorial Hospital, Toms River
(*AMNJ and AAFP*)

1 **Psychiatry**
17 1-3 p.m. – Ancora Psychiatric Hospital, Hammonton
30 (*Ancora Psychiatric Hospital and AMNJ*)

2 **Thyroid Disease**
11 a.m. – Greystone Park Psychiatric Hospital
(*AMNJ and AAFP*)

2 **Feasibility of Breast Cancer Screening**
5-6 p.m. – Rutgers Medical School, Piscataway
(*Rutgers Medical School and AMNJ*)

3 **Lectures in Obstetrics/Gynecology**
6-10 p.m. – 141 S. Harrison St., E. Orange
(*New Jersey Medical School and AMNJ*)

3 **Advances in Medicine**
10 9:30-11 a.m. – Bergen Pines County Hospital
17 Paramus
24 (*Bergen Pines County Hospital and AMNJ*)

3 **Cardiology Conferences**
17 4-6 p.m. – Rutgers Medical School
(*CMDNJ and AMNJ*)

3 **Medical Humanism – Hospital Ethics**
11:30 a.m. – Rahway Hospital
(*AMNJ and AAFP*)

3 **Courses for Psychiatrists**
8-10 p.m. – Hackensack Hospital
(*NJ Psychoanalytic Society and AMNJ*)

4 **Psychiatric Study**
8-10 p.m. – 312 Harding Drive, South Orange
(*Group for Advanced Psychiatric Study and AMNJ*)

4 **Pediatric Allergy Course**
11 11 a.m.-12 noon – Children's Hospital of Newark
18 (*Children's Hospital of Newark and AMNJ*)
25

4 **Infectious Diseases Course**
8:30-9:30 a.m. – Somerset Hospital, Somerville
(*Somerset Hospital of Newark and AMNJ*)

5 **Cerebral Vascular Disease**
8:30 a.m. – United Hospitals of Newark
(*AMNJ and AAFP*)

6- **MSNJ Annual Meeting**
9 Holiday Inn-Howard Johnson's Regency, Atlantic City

9 **Fluid and Electrolyte Imbalance**
9 p.m. – Bayonne Hospital
(*AMNJ and AAFP*)

10 **Arthritis**
1:30 p.m. – John E. Runnells Hospital, Berkeley
Heights
(*AMNJ and AAFP*)

13 **CME Program**
27 8-10 a.m. – Newcomb Hospital, Vineland
(*University of Pennsylvania School of Medicine and AAFP*)

15 **Endotoxic/Hemorrhagic Shock**
12 noon – Hospital Center at Orange
(*AMNJ and AAFP*)

16 **Kidney Stones**
12 noon – St. Mary's Hospital, Orange
(*AMNJ and AAFP*)

17 **Special Problems in Neurology**
7-10 p.m. – VA Hospital, East Orange
(*VA Hospital and AMNJ*)

18 **Advances in Pediatrics**
6:15 p.m. – Bridgeton Hospital
(*Bridgeton Hospital*)

18 **Antithrombotic Therapy**
5-6:30 p.m. – Somerset Hospital, Somerville
(*Somerset Hospital and AMNJ*)

19 **Chronic Renal Failure**
12 noon – Freehold Area Hospital
(*AMNJ and AAFP*)

20 **Immunology in Obstetrics and Gynecology**
9 a.m.-5 p.m. – Governor Morris Inn, Morristown
(*New Jersey Obstetrical and Gynecological Society and AMNJ*)

23 **Common Topical Agents in Dermatological Practice**
8:30-10 p.m. – 645 Cambridge Road, Paramus
(*Bergen Co. Chapter, American Medical Women's Association and AMNJ*)

23 **Cerebral Vascular Disease**
8 p.m. – Warren Hospital, Phillipsburg
(*AMNJ and AAFP*)

26 **Ophthalmologic Manifestations in Systemic Disease**
12:30 p.m. – Hamilton Hospital, Trenton
(AMNJ and AAFP)

31 **Cardiac Arrhythmias**
3 p.m. – Ancora Psychiatric Hospital, Hammonton
(AMNJ and AAFP)

June

1 **Infectious Disease Course**
8:30-9:30 a.m. – Somerset Hospital, Somerville
(Somerset Hospital and AAFP)

1 **Current Radiation Therapy**
11 a.m. – Greystone Park Psychiatric Hospital
(AMNJ and AAFP)

2 **Lipid Metabolism**
8:30 a.m. – United Hospitals of Newark
(AMNJ and AAFP)

5
12
19
26 **Neuroscience Conferences**
11:30 a.m.-12:30 p.m. – Bergen Pines County Hospital, Paramus
(Bergen Pines County Hospital and AMNJ)

5 **Thyroid Diseases**
8 p.m. – Community Memorial Hospital, Toms River
(AMNJ and AAFP)

6 **Esophageal Emergencies**
5-6 p.m. – Rutgers Medical School, Piscataway
(Rutgers Medical School and AMNJ)

7
14 **Advances in Medicine**
9:30-11 a.m. – Bergen Pines County Hospital, Paramus
(Bergen Pines County Hospital and AMNJ)

7
21 **Cardiology Conferences**
4-6 p.m. – Rutgers Medical School, Piscataway
(CMDNJ and AMNJ)

7 **Psychiatry**
14 1-3 p.m. – Ancora Psychiatric Hospital, Hammonton
(Ancora Psychiatric Hospital and AMNJ)

10 **Differential Diagnosis – The Wheezing Patient**
24 **The Leukemias**
8-10 a.m. – Newcomb Hospital, Vineland
(Newcomb Hospital and University of Pennsylvania Hospital)

15 **Beta-Adrenergic Blocking Agent in Cardiovascular Disease**
5-6:30 p.m. – Somerset Hospital, Somerville
(Somerset Hospital and AMNJ)

16 **Sports Medicine**
12 noon – Freehold Area Hospital
(AMNJ and AAFP)

20 **Northern Regional Chest Conferences**
7:30-9:30 p.m. – Beth Israel Hospital, Newark
(New Jersey Thoracic Society and AMNJ)

20 **Acute and Chronic Leukemia**
12 noon – St. Mary's Hospital, Orange
(AMNJ and AAFP)

20 **Shock**
8:30 p.m. – Marriott Motor Inn
Saddle Brook
(Fair Lawn Memorial Hospital, AMNJ and AAFP)

21 **Special Problems in Neurology**
7-10 p.m. – VA Hospital, East Orange
(VA Hospital and AMNJ)

27 **Current Radiation Therapy**
8 p.m. – Warren Hospital, Phillipsburg
(AMNJ and AAFP)

30 **Chronic Obstructive Lung Disease**
12:30 p.m. – Hamilton Hospital, Trenton
(AMNJ and AAFP)

212th Annual Meeting
May 6-9

Headquarters Hotels

Holiday Inn — Howard Johnson's Regency

Atlantic City

(See housing application — p. 92, this issue)

DOCTOR:

is your Medical Assistant keeping in step with you?



As medical practice becomes more complicated and more highly specialized, you need more highly trained medical assistants in your office.

Membership in the AMERICAN ASSOCIATION OF MEDICAL ASSISTANTS will help your assistants keep up-to-date and informed of new ideas and techniques. AAMA s continuing education program offers workshops and seminars that will enhance the professionalism of your office employees.

As the first professional organization for medical assistants (founded 1956), AAMA pioneered in developing the only certification program in this field. A medical assistant who successfully completes the basic examination is identified as a Certified Medical Assistant (CMA). Specialty categories include administrative (CMA-A), clinical (CMA-C), and pediatric (CMA-Ped). More than 7,500 certificates have been earned since the first examination was given in 1963.

The AAMA pioneered in the development of curriculum standards for medical assisting programs. The American Medical Association, in collaboration with AAMA, is recognized as an official accrediting agency for such programs by the U.S. Office of Education.

On five different occasions the AMA House of Delegates has passed resolutions commending the objectives of AAMA, endorsing its functions, and urging every physician to encourage medical assistants to join the association in order to benefit from its educational programs.

To help your medical assistants do a better job of helping *you*, urge them to join AAMA—the professional association dedicated to their continuing education. Fill in the attached coupon and mail it today. Your practice deserves the best.

I wish to inquire about membership for my medical assistant in the American Association of Medical Assistants, Inc. Please send more information to:

Name_____

Business Address _____ Phone _____

City _____ State _____ Zip Code _____

Member of county medical society? Yes _____ No _____

County _____

Names of assistants	Addresses
_____	_____
_____	_____
_____	_____

Clip and mail to: American Association of Medical Assistants, Inc., One East Wacker Drive, Chicago, Illinois 60601.

OBITUARIES

Dr. Frederick M. Apfelbaum

A member of our Union County component, Frederick M. Apfelbaum, M.D., of Kenilworth, died on November 4, 1977. Born in New York City in 1914, Dr. Apfelbaum was graduated from Long Island University College of Medicine in 1937 and pursued a full-time career in industrial medicine until the mid 1950s, when he established a private practice in general medicine and accepted appointment on the attending staff at the Rahway Hospital.

Dr. Canio Bibbo

Canio Bibbo, M.D., a member of the Bergen County Medical Society, died on November 7 at his home, after a long illness. A native of New York City, Dr. Bibbo practiced there for sixteen years following graduation from Long Island University College of Medicine in 1929 and internship and medical residency at Harlem Hospital. In 1947 Dr. Bibbo accepted appointment as full-time physician for the Western Electric Company in Kearny and continued in the field of industrial medicine until illness forced his retirement. During World War II, Dr. Bibbo served with the medical department of the Army of the United States. He was 72 years old at the time of his death.

Dr. Emile H. Boselli

Emile H. Boselli, M.D., an emeritus member of our Union County component, died suddenly on June 10, 1977 of a massive gastric hemorrhage. Born in New York City in 1899, Dr. Boselli was graduated from Columbia University College of Physicians and Surgeons in 1924. He took graduate training at St. Luke's Hospital in New York and pursued a career in internal medicine, practicing in Union City for many years and later in Fanwood. He had been associated with Christ Hospital in Jersey City and with the Muhlenberg Hospital in Plainfield. Dr. Boselli retired in 1966 and moved to New Hampshire. He was a recipient of MSNJ's Golden Merit Award in 1974.

Dr. Michele Cristofaro

On September 12, 1977, at the untimely age of 48, Michele Cristofaro, M.D., died suddenly at Bayshore Community Hospital of a heart ailment. Born in Italy, Dr. Cristofaro earned his medical degree from the University of Rome in 1955 and, after a one-year internship in Italy, emigrated to the United States for further training and residencies in internal medicine at Monmouth Medical Center in Long Branch and Riverview Hospital in Red Bank. He accepted staff appointments at those two hospitals and established a private practice in Holmdel. Dr. Cristofaro was a member of our Monmouth County Medical Society.

Dr. John F. Davis

A well known Essex County general practitioner, John F. Davis, M.D., of Bloomfield, died on October 3, 1977. Born in 1917 and graduated from Georgetown University School of Medicine, class of 1943, Dr. Davis served in the medical department of the United States Army for two years immediately following internship, and in 1948 came to Essex County to establish a practice. He was affiliated with St. Vincent's, Mountainside, and Community Hospitals in Montclair. Dr. Davis was a member of the Academy of Medicine of New Jersey.

Dr. J. Otis Denelsbeck

One of Mercer County's senior physicians, J. Otis Denelsbeck, M.D., died on November 12, 1977 in Mercer Medical Center, Trenton. Dr. Denelsbeck was graduated from the University of Pennsylvania School of Medicine, class of 1912 and practiced general medicine in Trenton until retirement five years ago. He had been affiliated with Mercer Medical Center. Dr. Denelsbeck was 88 years old at the time of his death.

Dr. Jacob L. Dreskin

One of Essex County's senior members, Jacob L. Dreskin, M.D., died at East Orange General Hospital on November 4, 1977. Born in 1901, in Russia, Dr. Dreskin earned his medical degree from the University of Maryland School of Medicine, class of 1925, and took graduate

training in rectal diseases. Before moving to East Orange, he had practiced in Newark for 51 years, and for 40 years was medical director for Bamberger's department stores. He had been on the staff at Beth Israel Medical Center in Newark. Dr. Dreskin was recipient of MSNJ's Golden Merit Award in 1975, indicating fifty years of medical practice.

Dr. Edward Ehrlich

One of Essex County's senior members, Edward Ehrlich, M.D., died at St. Barnabas Medical Center, Livingston, on November 20, 1977. Born in Vienna, Austria, Dr. Ehrlich was graduated from the University of Vienna School of Medicine in 1925. He emigrated to the United States in 1934 and in 1938 came to Newark to establish a practice in otolaryngology, which he later moved to Maplewood. Dr. Ehrlich was board certified in his chosen field and had been senior attending in the department of otolaryngology at Newark Eye and Ear Infirmary, and associate in otolaryngology at Martland and Newark Beth Israel Medical Centers. Dr. Ehrlich was a member of the American and New Jersey Associations of Ophthalmology and Otolaryngology and of the Academy of Medicine of New Jersey. He was 77 years old at the time of his death. In 1975 he had been a recipient of MSNJ's Golden Merit Award for fifty years of medical practice.

Dr. William Ehrlich

On October 23, 1977, William Ehrlich, M.D., a member of our Essex County component, died in Florida, where he had been living in retirement since 1970. Born in 1906 and graduated from Washington University School of Medicine in 1931, Dr. Ehrlich had practiced neurological surgery in the Newark area for many years, and was board certified in that field. He had been chief of the department of neurosurgery at Beth Israel Medical Center in Newark and also held staff appointments at Hackensack Hospital, Barnert Memorial and St. Joseph's Hospitals in Paterson, St. Elizabeth and Alexian Brothers Hospitals in Elizabeth, the Christ Hospital in Jersey City, and the Veterans Administration Hospital in Lyons. Dr. Ehrlich was a member of the New York Neurosurgical Society and the New Jersey Neuropsychiatric Association, and of the Academy of Medicine of New Jersey.

Dr. Carl L. Minier

One of Morris County's well-known pathologists, Carl L. Minier, M.D., of Mendham, formerly of Dover, died suddenly at Dover General Hospital on November 11, 1977. Born in 1901 and graduated from Jefferson Medical College, class of 1929, Dr. Minier pursued a career in pathology and had been affiliated with Community Hospital, Montclair, St. Barnabas Medical Center in Livingston, Babies' and Crippled Children's Hospitals in Newark, and the Dover General Hospital, having been Chief of Laboratories at the latter. He also had been pathologist for Parke-Davis Laboratories in Newark, retiring from that position in 1970. He was a member of the American and New Jersey Societies of Clinical Pathology. During World War II, Dr. Minier was a commander in the medical department of the United States Navy.

Dr. Harold J. Orris

Harold Julius Orris, M.D., a member of the Essex County Medical Society, died on October 20, 1977. A native of New Jersey, born in 1910, Dr. Orris earned his medical degree from George Washington University School of Medicine in 1934 and pursued a career in pediatrics in Newark. He was affiliated with Beth Israel Medical Center and Babies' Hospital in Newark, and with St. Barnabas Medical Center in Livingston. Dr. Orris was a Fellow of the American Academy of Pediatrics and a member of the Academy of Medicine of New Jersey.

Dr. Lyndon A. Peer

One of Essex County's well-known members, Lyndon Arthur Peer, M.D., who formerly had offices in Newark, East Orange, and Livingston, died on October 8, 1977 in Boca Raton, Florida. A graduate of Cornell Medical College, class of 1925, Dr. Peer took residencies

in head and neck surgery at Newark Eye and Ear Infirmary and in plastic surgery at New York Postgraduate Hospital. He was certified by the American Board of Otolaryngology and by the American Board of Plastic Surgery, of which he was a founding member. He was a Fellow of the American College of Surgeons and of the International Congress of Surgeons, and held membership in the American Society of Plastic and Reconstructive Surgery and the American Association of Plastic Surgeons. Dr. Peer has been chief of the department of plastic surgery at Martland Medical Center and attending in that department at the Eye and Ear Infirmary, Babies Hospital, and St. Michael's Medical Centers in Newark, and at St. Barnabas Medical Center in Livingston, in addition to serving as consultant in plastic surgery at many of the hospitals in Essex and Morris Counties.

In 1975 Dr. Peer was a recipient of MSNJ's Golden Merit Award acknowledging fifty years of medical practice. He also was honored in 1961 as recipient of the Edward J. Ill Award for outstanding contribution to medicine in New Jersey, particularly in his work with children with cleft palates and in molding living tissue into ears for children born without them. He was coeditor of the *American Journal of Plastic Surgery* and was on the editorial board of the *British Journal of Plastic Surgery*. Dr. Peer was 79 years old at the time of his death.

Dr. Frank D. Rizzo

Word has been received of the death, after a long illness, on September 8, 1977, of Frank D. Rizzo, M.D., a member of our Middlesex County component. A native of Philadelphia, Dr. Rizzo received his medical degree from Jefferson Medical College in 1960 and took a residency in obstetrics and gynecology at Highland Hospital in Rochester, New York. Upon completion of those studies, he came to New Jersey to establish a practice in Colonia. He was a Fellow of the American College of Obstetrics and Gynecology and was affiliated with Rahway Hospital, South Amboy General Hospital and the Kennedy Hospital in Edison. Dr. Rizzo was only 44 years old at the time of his death.

Dr. Arthur J. Zweibel

We just have learned of the death on October 6, 1977, of Arthur J. Zweibel, M.D., a member of our Essex County component. Born at the turn of the century, Dr. Zweibel was graduated from University of Chicago Medical School, class of 1944, and pursued graduate training in psychiatry, becoming board certified in that specialty. He had been on the attending staff in the department of psychiatry at the Hospital Center at Orange and at Mountainside Hospital in Montclair. Dr. Zweibel was a Fellow of the American Psychiatric Association and of the American Academy of Psychoanalysis and President of its New Jersey affiliate.

BOOK REVIEW

Review of Medical Physiology. 8th Edition. Wm. F. Ganong, M.D., Los Altos, Californio, Longe, 1977. Illustroted. Pp. 599. ($12)

The amount of information that medical students must absorb has grown apace with the advances in the many fields to which they are exposed. Most students learn and retain better when there is reinforcement of the material. This review of physiology should be of considerable help in producing such reinforcement. It is a no-nonsense, straightforward, and even on occasion dogmatic account of established knowledge. It also is extremely limited in depth. Thus, gas transport in lungs and tissues and regulation of extracellular fluid composition and volume each are covered in about 6 pages. The kidney and renal function fare better and, in contrast, are provided with over 20 pages. There is relatively little of the correlation of structure and function that is being increasingly sought and emphasized. Nor is the impression conveyed of the dynamic field that physiology actually is. There are a few carefully selected references at the end of each group of chapters.

All in all this is a good summary that will be helpful in getting students past departmental and board examinations. But, alone, it will not be enough.

Francis P. Chinard, M.D.

Plagues and Peoples. William H. McNeill. Gorden City, New York. Anchor Press/Doubledoy, 1977. Pp. 340. (Poperbock—$3.50)

Seldom in recent times has a new historical work drawn as much attention as this book which is an account of the effects of disease on human history. Its author, William H. McNeill, professor of history at the University of Chicago, has written several other books including *The Rise of the West: A History of the Human Community.* His latest treatise traces the impact of pestilence on social, cultural, economic, and political affairs in the world. It continues a tradition set by earlier volumes such as Theobald Smith's *Parasitism and Disease,* Ralph Major's *Fatal Partners: War and Disease,* Hans Zinsser's *Rats, Lice and History,* and Charles Winslow's *Man and Epidemics.*

Professor McNeill describes with impressive evidence the frequent and decisive role that disease has exerted upon man's historical development. For, epidemics and epizootics scourged living creatures long before recorded annals. Topics in this survey include the confluence of the civilized disease pools of Eurasia: 500 B.C. to A.D. 1200; impact of the Mongol Empire on shifting disease balances, 1200-1500; transoceanic exchanges, 1500-1700; and the ecological impact of medical science and organization since 1700. An appendix compiled by Professor Joseph H. Cha of Quincy College, Illinois, lists 292 recorded epidemics which afflicted people in various parts of China between 243 B.C. and 1911 A.D.

The gamut of human maladies—cholera, influenza, leprosy, malaria, plague, smallpox, syphilis, typhus, tuberculosis, yellow fever—to name ten of them, here pass in review. Heredity, nutrition, sanitation, migration, occupation, and other host factors are cited among contributory factors in health and illness. The book concludes with scholarly notes and an index. *The New Yorker* acclaimed *Plagues and Peoples* as "a book of the first importance." Medical readers will agree with this opinion.

Fred B. Rogers, M.D.

Nothing To Fear: Coping with Phobias. Froser Kent. New York, Doubledoy, 1977. Pp. 204. ($7.95)

Predicated on an interest in phobias and people who must live with them or seek help to overcome this discomforting disorder, the author tells how prevalent is the affliction, the great variety of stimuli to the phobic reaction, and the varied extent of disabling states arising from the phobic reaction. Much of the material is anecdotal and interesting but lacks dynamic depth. Advice is given concerning what society has to offer by way of help from supporting friends, to "Fraidycat" groups to counter the fear of flying, to desensitization by behavior modification, to classical psychoanalysis, to Gestalt therapy, to a variety of group therapies, and even to meditation. To the psychiatrist, the book serves as a reminder that there is a need for ongoing research in the classification, dynamic and physiological understanding, and therapy of the phobic states. Classifications based upon the objects or situations feared are about as helpful as a classification of auditory hallucinations predicated upon the direction of the compass from which the voices are heard. The book has value to the uninitiated who harbors the notion that his reaction is unique and portends dire mental consequences.

Ira S. Ross, M.D.

The Merck Manual, 13th Edition. Robert Berkow ond J. H. Tolbott, editors. Rohwoy (NJ), Merck, Shorp, & Dohme, 1977. Pp 2165. Illustroted. ($9.75)

What can one say about this thirteenth edition of *The Merck Manual,* a kind of friend by now? The 1977 version, edited by Robert Berkow and John H. Talbott, with the assistance of an unusually impressive editorial board and an eleven-page list of contributors, surely fulfills the objectives of its ancestors. The original *Merck's Manual of the Materia Medica,* which first appeared in 1899, was designed expressly "to meet the needs of general practitioners in selecting medications, noting that 'memory is treacherous' and even the most thoroughly informed physician needs a reminder to make him at once master of the situation and enable him to prescribe exactly what his judgment tells him is needed for the occasion."

The excellent technique of identification of topics and chapters is maintained, so one need not fumble at his consultation desk as the patient waits in the examining room. The clinical pharmacology section is clearly identified by a red tab. The volume is filled with common-sense advice, e.g., in discussing patient compliance the author wrote "making a correct diagnosis and designing a simple, effective therapeutic regimen starts the therapeutic process. Directions must be clear, precise, and tailored to the vagaries and necessities of the patient's life and the disease process. Good communication between the physician and the patient is essential."

Without increasing the overall size, the new edition contains 200 additional pages, which was made possible by thinner paper, and the type size is very comfortable.

I highly recommend the 1977 edition of *The Merck Manual* to every physician, medical student, and to most of the new breed of allied health professionals, such as nurse practitioners and physician assistants. Arthur Krosnick, M.D.

Governor's Conference

"The Physician and His Environment"

Saturday, May 6—9 A.M.
Holiday Inn, Atlantic City

Quote:
The AMA doesn't represent me.
Unquote.



May be that's the way you feel. Thinking the AMA does little to represent your interests.

If it be true . . .

Who did press federal court action that forced HEW to withdraw it Utilization Review Regulations?

Who did initiate suits against the Maximum Allowable Cost (Drug) regulations and the Health Planning Act of 1974?

Who did develop guidelines that helped many state societies press for legislative reform of liability and adjudication?

Who has continually fought to insure that physicians will receive usual and customary fees under federally financed programs?

Who did provide the leadership to get the Keogh Plan liberalized to permit increased annual contributions for retirement to 15 percent of earned income or $7,500, whichever is less?

The answer to all these questions is: *your* AMA. The fact is, the AMA works hard — and effectively — to protect your rights and to represent your interests. With your support, it can be even more effective.

Join us.
We can do much more together.

Dept. of Membership Development
American Medical Association
535 N. Dearborn St./Chicago, IL 60610

Please send me more information on the AMA and AMA membership.

Name _____

Address _____

City/State/Zip _____

DIRECTOR OF AMBULATORY CARE:

1040 bed teaching hospital with medical school affiliation on attractive site in Northern New Jersey seeks a physician to supervise, coordinate, and teach in both Emergency and Outpatient Departments. Over 10,000 ER and 120,000 clinic visits annually. A New Jersey medical license or eligibility required. Income competitive. Membership in American College of Emergency Physicians desirable. Challenging position.

Send Curriculum Vitae to Thomas Casey, Bergen Pines County Hospital, Paramus, New Jersey 07652

MEDICAL DIRECTOR/PSYCHIATRIST

Will assume clinical leadership in a hospital based Mental Health Center. Candidate must have minimum 2 years post-residency experience in a community mental health center and be licensed to practice in New Jersey.

Send resume including salary history to Personnel Department, South Amboy Memorial Hospital, 540 Bordentown Avenue, South Amboy, New Jersey 08879. Equal Opportunity Employer.

RESIDENCY IN PHYSICAL MEDICINE AND REHABILITATION

Dynamic, young program with balanced academic and clinical emphasis under the supervision of 10 physiatrists. Three year program and integrated internship/residency with opportunity for research and pursuit of special interests both in medical school and private hospital settings. Stipends from $13,300 to $15,200 depending on qualifications. We will pay for visits in selected cases. Telephone or write for information to:

John F. Ditunno, Jr., M.D., Director
Department of Rehabilitation Medicine
Thomas Jefferson University Hospital
11th and Walnut Street
Philadelphia, Pa. 19107
Telephone: (215) 829-6573

Physicians,

consider a practice in South Carolina

* low malpractice insurance rates, * the opportunity to join a group or partner or establish a new practice in a rural or urban area, * continuing medical education through a system of Area Health Education Centers, as well as two medical schools, * lower taxes, * lower cost of living, * access to both mountains and beaches, and * a mild climate

For information about specific practice opportunities in South Carolina, contact:

rural health delivery project

Post Office Box 11188
Columbia, South Carolina 29211
(803) 779-7264

PHYSICIAN

DIRECTOR EMERGENCY SERVICES

Modern, 300 bed, fully accredited general hospital, is recruiting for a physician to direct the medical and non-medical activities and responsibilities of the Emergency Services Department. To qualify for this full-time directorship position, you must be licensed in New Jersey and have board certification or eligibility in a related specialty, experience in the emergency services department and proven administrative ability. The hospital is situated in a pleasant, southern New Jersey suburb. We offer above average salary and working conditions. For further information, please send curriculum vitae to:

MR. RICHARD MARTIN
ADMINISTRATOR

RANCOCAS VALLEY HOSPITAL

Sunset Road Willingboro, NJ 08046
An Equal Opportunity Employer M/F

OFFICE SPACE

Due to relocation, we have available for January occupancy, a 1220 sq. ft. suite containing 2 private offices, 3 examining rooms, private lavatory, secretary's area, treatment area and a reception area.

Ideally suited to the general practitioner, this suite is quite adequate and adaptable for other professionals.

This 1 year old finished suite rents for $650. per month on a minimum 3 year lease. The location is 1108 Hooper Avenue. Toms River is ideal.

For further information:
Call Marianne
244-7227

OCEAN COUNTY

5 Miles South of Toms River

NOW RENTING
NEW MEDICAL AND DENTAL ARTS BUILDING
GROUND LEVEL, 1400 sq. ft. (may subdivide)

General Dentist located in building
Excellent for Group or Solo practice

For more information
CALL (609) 693-6524

PROFESSIONAL BUILDING OFFICE SPACE

JERSEY CITY—adjacent to modern hospital. 2,500 square feet, may be rented out as TWO suites of 1300 and 1200 feet. Will alter to suit. Ophthalmologist and optician located in building.
Excellent for group or solo medical or dental practice, especially pediatrics.

(201) 653-3171

PERSONNEL

See Pages 109 112

NEW YORK FERTILITY RESEARCH FOUNDATION, INC.

For the Investigation of
Problems of Human Infertility

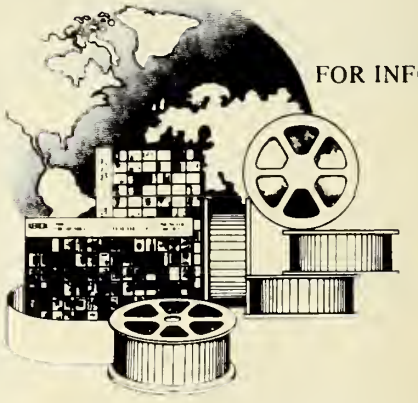
The Institute provides a complete diagnostic and consultation service for infertile couples. Investigations are conducted by well-known specialists in conjunction with consultants in the various fields of medicine related to infertility.

Patients are returned to the referring physician after appropriate studies have been made, together with a complete detailed report of the findings of the Institute and its consultants and recommendations for therapy. Literature on request.

123 East 89th Street, N.Y., N.Y. 10028

Phone: TR 6-9300

This Publication is Available in MICROFORM



FOR INFORMATION
WRITE:

University Microfilms International

Dept. F.A.
300 North Zeeb Road
Ann Arbor, MI 48106
U.S.A.

Dept. F.A.
18 Bedford Row
London, WC1R 4EJ
England

CLASSIFIED ADVERTISEMENTS

OPHTHALMOLOGIST—Seeks partnership, associate or group. Board eligible, 28, married. Completing university residency. Available July 1978. Please reply to Allan S. Markowitz, M.D., 3535 Rochambeau Avenue, Bronx, New York 10467. (212) 547-4599.

UROLOGIST—Seeks partnership, associate or group. Completing residency July 1978. Please reply to: B. N. Bhargava, M.D., 353 East 17th Street, New York, New York 10003. (212) 673-1457.

UROLOGIST—Seeks association leading to partnership. Age 31, finishing major Philadelphia University program June 1978. Write Box No. 30, c/o THE JOURNAL.

NEEDED—Dermatologist; certified or eligible to join two Certified Dermatologists in busy, interesting, pleasant New Jersey practice. 45 minutes from New York. Immediate or July 1, 1978. Send Curriculum Vitae to: Dermatology Associates, 349 East Northfield Road, Livingston, New Jersey 07039.

NEEDED—Emergency Physician; excellent opportunity, Central New Jersey, university community. Academically oriented, professionally and financially rewarding. Six-man group. Call E. V. McGinley, M.D. (201) 277-0466.

NEEDED—Industrial Clinic seeking physician to join staff in Newark. Call (201) 961-2525.

NEEDED—Internist/Gastroenterologist. Expanding mixed medical group seeking gastroenterologist. Present subspecialties include gastroenterology, cardiology, hematology-oncology. Complete office facilities. Send curriculum vitae to Box No. 21, c/o THE JOURNAL.

NEEDED—Mature Internist; very busy internist in South Jersey (near Atlantic City) desires internist with interest in general internal medicine. Sub specialty welcomed. Excellent area. Good schools, good boating, excellent tennis. Apply Box No. 27, c/o THE JOURNAL.

NEEDED—Psychiatrist; retired, with New Jersey license; full or part-time; private mental health center. Toms River. Flexible hours. Call (201) 240-5655.

NEEDED—Associate in Radiology. Established private practice in metropolitan New Jersey. Knowledge of Spanish helpful. Write Box No. 29, c/o THE JOURNAL.

PRACTICE AVAILABLE—Sale, lease with option to buy. Full-time Pediatric Practice, Monmouth County, seashore area. Close to 2 teaching hospitals. Annual gross $125,000. Modern building, all new equipment. Will introduce. Write Box No. 26, c/o THE JOURNAL.

PRACTICE WANTED—Internist, excellent University trained, wishes partnership with another Internist or buying an existing practice for desired value. Write Box No. 28, c/o THE JOURNAL.

OFFICE SPACE—Butler, Route 23. 1300 square feet, eight room doctor's suite presently occupied by physician. Modern professional building. Excellent appointments. Availin Spring. (201) 778-5058.

OFFICE SPACE—Fair Lawn; Choice Suite. 860 foot suite in modern professional building, opposite Fair Lawn Memorial Hospital. Ideal location near several open staff hospitals. Multi-specialty building with owner-occupant. Generous on-site parking. Joachim Oppenheimer, M.D. 11-26 Saddle River Road, Fair Lawn, New Jersey 07410. (201) 796-9200.

OFFICE SPACE—Ramsey—Serving population area of approximately 85,000. Need solo medical and dental specialist for multi-specialty building. Near all cultural and recreational facilities. 30 minutes to New York City. (201) 529-3998.

OFFICE SPACE—Trenton; Modern dental office containing a waiting room, doctor's private office, receptionist's area, three large examination and treatment rooms with sinks, small lounge area, two private bathrooms, laboratory room and an x-ray developing room. These offices have separate air-conditioning and electrical service from rest of building. Address: 717 West State Street. Phone (609) 392-2007 for other information.

FOR SALE—NCR Computer with Software program for medical group billing. Programs available for Medicare, Medicaid, Blue Shield and general insurance forms. For further information call (609) 695-9300.

Information for Members—RATES:—$5.00 per insertion up to 25 words; 10 cents each additional word. Payable in advance. **WORD COUNT:** Count as one word all single words, two initials of a name, each abbreviation, isolated numbers, groups of numbers, hyphenated words. Count name and address as five words, telephone number as one word, and "Write Box No. 000, c/o THE JOURNAL" as six words. **COPY DEADLINE:** Fifth of preceding month.

HALL-BROOKE FOUNDATION

A NON-PROFIT ORGANIZATION DEDICATED TO
COMMUNITY HEALTH CARE AND EDUCATION

Elisabeth F. S. Solomon
Executive Director

HALL-BROOKE HOSPITAL

A JCAH accredited hospital for care and treatment of psychiatric disorders within a therapeutic community.

Robert E. Becker, M.D.
Medical Director

HALL-BROOKE SCHOOL

A special educational facility for students who are in psychiatric treatment.

47 LONG LOTS ROAD
WESTPORT, CONNECTICUT 06880
Telephone: (203) 227-1251

We Need Medical Attention:

Urban Essex County is in desperate need of more qualified physicians and dentists. To help alleviate this condition, a group of dedicated practitioners -- the Board of Directors in charge of a Medical-Professional Building in East Orange -- has agreed to give special concessions to all new doctors wishing to locate at the building

How They Will Help New Tenants:

- The Board of Directors has agreed to absorb 50% of all new tenant's rents for the first six months of occupancy.
- Twenty-four hour, on-premises phone answering services will be provided at half the normal monthly cost for six months.
- Special, low-cost renter's insurance is available.
- Special one-year leases with options are offered.

General Advantages:

- On premises clinical laboratory.
- Existing plumbing for special equipment.
- Convenient access from Parkway and Route 280.
- Supervised parking lot.
- Accessibility to all offices without stairs to climb.
- Daily on-premises manager.
- Special patient discharge and pick-up areas.
- Self-service elevators.

We need more doctors, and we need them now. If you're willing to help the people of urban Essex County, the Board of Directors of the Mid-Essex Professional Building is more than willing to help you.

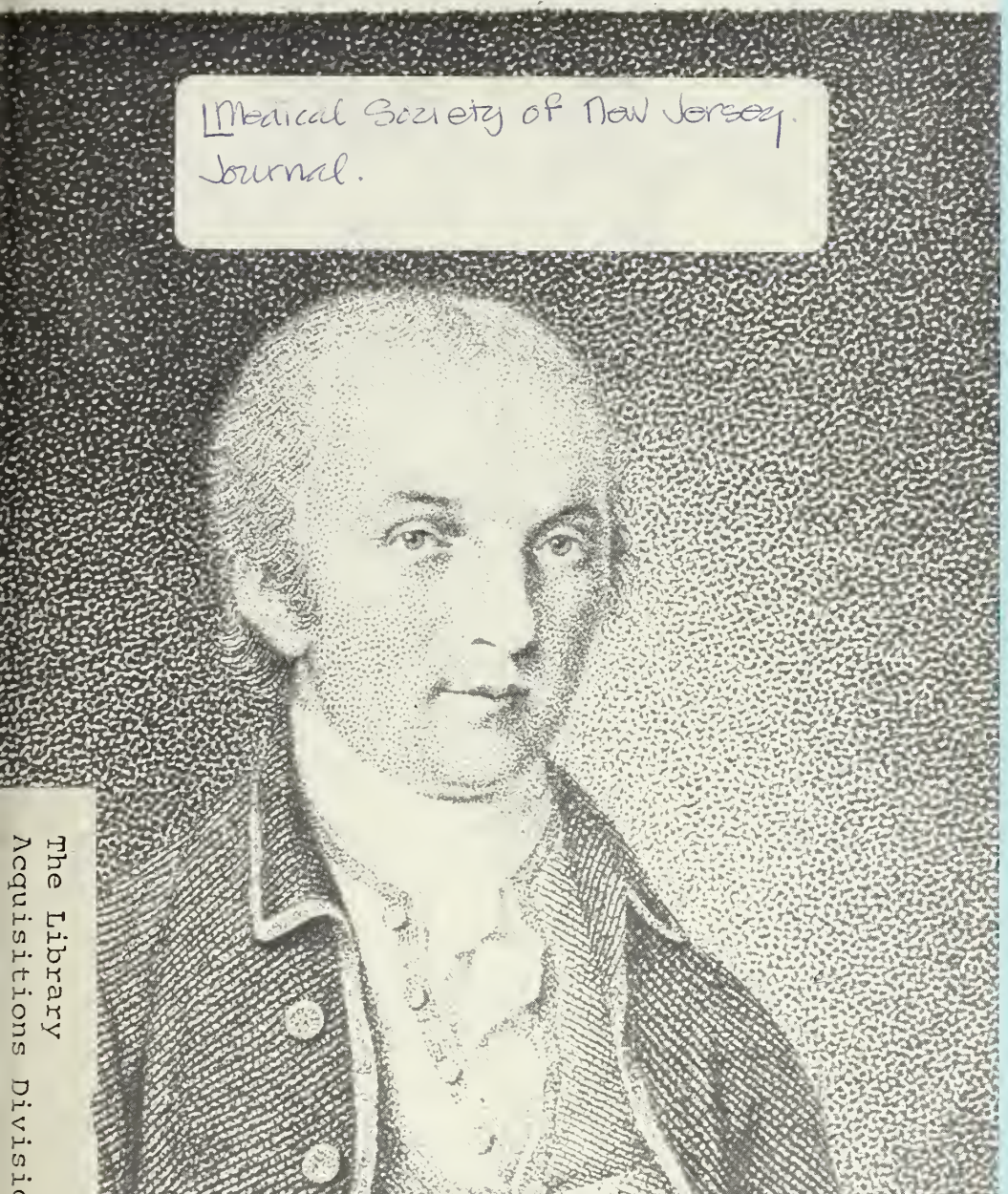
THE MID-ESSEX PROFESSIONAL BUILDING

A.F. Brockie, Manager

[201] 675-8100

February 1978

Journal of the Medical Society of New Jersey



[Medical Society of New Jersey. Journal.

The Library
Acquisitions Division

Smoking and Pregnancy
R. DeMarsico, M.D., et al.

Chemotherapy of Lung Cancer
B.J. Koven, M.D.

Lithium-Induced Parkinsonism Precipitated by Liquid Protein
E. G. Lutz, M.D.

Complete Table of Contents on Page 116

Check List For Savings

Under The Medical Society of New Jersey

Endorsed Insurance Plans

NEW HIGHER LIMITS	$4600 Monthly Accident and Health
TAX DEDUCTIBLE PREMIUM	$5,000 Professional Overhead Expense Plan
INCREASED FROM $150,000	$250,000 Term Life Insurance
$250,000 COVERAGE	Quarter-Million-Dollar Major Expense Plan
HIGH LIMITS— LOW COSTS	$200,000 Six Point High-Limit, Accidental Death, Dismemberment, Total Disability
EXTRA MONEY WHEN HOSPITALIZED	$60 a day Hospital Money-Indemnity Plan
$7500—15%	$7500 Tax-deductible KEOGH Plan and Corporate Master Plan

CHECK THIS LIST AGAINST YOUR COVERAGES . . . ASK FOR FREE NO-OBLIGATION INFORMATION ABOUT THE NEW MONEY-SAVING PLAN

E. & W. BLANKSTEEN AGENCY, INC.

E. & W. BLANKSTEEN

75 MONTGOMERY STREET • JERSEY CITY, N.J. 07302

(201) 333-4340

NEW YORK UNIVERSITY
POST-GRADUATE MEDICAL SCHOOL

announces

ADVANCES IN CLINICAL CARDIOLOGY FOR THE PRACTICING PHYSICIAN

Thursdoy-Soturdoy — Fee: $250
Morch 20 to April 1, 1978 — 8:00 AM-5:00 PM

Course Director: Dr. Kenneth Krouss

This course is specificolly designed for primory physicions ond internists. The objective is to improve ond updote bosic knowledge ond clinicol skills required for monogement of potients with common cordiovosculor diseose syndromes. Emphosis is on topics of mojor importonce ond current interest with on orientotion to proctical considerotions of diognosis ond treotment in the office ond hospitol setting.

Morning Sessions

Core curriculum review lectures with special emphosis on recent developments of procticol clinicol importance.

Afternoon Sessions

Port I: *Patient Monogement Problems* — Cose studies illustroting approoches to common clinicol problems in office and hospitol proctice.

Port II: *Demonstrotion Workshops* — Pocemokers, ouscultotion updote, treotment of hypertension, cordiopulmonory resuscitotion, exercise stress testing, echocordiography ond Holter monitoring, cotheterizotion loborotory, peripherol vosculor exominotion, monogement of orrythmios, cordioc rehobilitotion center visit.

ADVANCES IN CLINICAL GASTROENTEROLOGY FOR THE PRACTICING PHYSICIAN

Mondoy-Wednesdoy — Fee: $250
April 10-12, 1978 — 8:00 AM to 5:00 PM

Course Director: Dr. Arthur E. Lindner

This course is specificolly designoted for fomily physicians ond internists who are not gostroenterologists. The objective is to improve ond updote bosic knowledge ond clinicol skills required for monagement of potients with common gostrointestinol problems. Emphosis is on topics of mojor importonce ond current interest with on orientotion to procticol considerotions of diognosis ond treotment in the office ond hospitol setting.

Morning Sessions

Core curriculum review lectures with speciol ottention to recent developments of procticol clinicol importonce.

Afternoon Sessions

Port I: *Potient Management Problems* — Cose studies illustroting opprooches to common clinicol problems in office ond hospitol proctice.

Port II: *Clinicol Workshops* — Upper Gostrointestinol Endoscopy; Colonoscopy; E.R.C.P.; G.I. Rodiology (film interpretotion); Smoll Bowel Biopsy; Esophogeol Monometry; Liver Biopsy; Abdominol Ultrosound; Sigmoidoscopy ond Monogement of Common Anorectol Problems; Open Elective Workshop.

ELECTROCARDIOGRAPHY

Mondoy-Wednesdoy — Fee: $250
April 3 to 5, 1978 — 8:00 AM-5:00 PM

Course Director: Dr. George Beor

A procticol, intensive review of office electrocardiography stressing bosic electrophysiology os on approach to occurote diognosis. Topics ore presented in the context of frequently encountered clinical problems. Presentations include cose studies ond unknown EKG's for self-assessment evoluotion which illustrote the usefulness ond limitotions of the electrocordiogrom os o clinicol tool. Common problems thot interfere with correct EKG interpretotions will be discussed in detail and practicol solutions outlined. For internists ond generol physicions.

Discussions Include:

- The Normol Electrocordiogrom
- The Electrocordiogrom of Coronory Artery Diseose
- Tochyorrhythmios
- Conduction Abnormolities
- Brodyorrhythmios
- Chomber Enlorgement
- Drug ond Electrolyte Effects
- WPW Syndrome

INTERPRETATION OF CLINICAL LABORATORY DATA FOR PRIMARY PHYSICIANS

Wednesdoy-Fridoy — Fee: $250
April 19-21, 1978 — 8:00 AM to 5:00 PM

Course Directors: Drs. Horold S. Koplon and Poul P. She

A procticol survey of the laboratory repertoire utilized in the diognosis and evaluotion of potients with diseases commonly encountered in office proctice. Topics include enzymology in cordiovosculor diseose; evoluotion of hyperlipidemias; office exomination of urine; thyroid diseose, diobetes, ond hypoglycemio; loborotory investigotion of liver diseose; hepotitis updote ond new developments in bocteriol ond viral infections. Guidelines for choosing office loborotory procedures are considered.

* * *

For information, write or phone: Registration Department, NYU Post-Graduate Medical School, 550 First Avenue, NYC, NY 10016; 212-679-3200, Ext. 4038.

* * *

Special Note: Tuition reduced 10% for each additional course. Tuition includes syllabus, continental breakfasts, refreshments, lunches.

* * *

Accreditation: All courses approved for AMA Category I credit hours and AAFP prescribed hours.

* * *

THE MEDICAL SOCIETY OF NEW JERSEY

Founded July 23, 1766

Officers and Trustees

PRESIDENT
Frank R. Begen, M.D. (Bergen) — Teaneck

PRESIDENT-ELECT
Charles S. Krueger, M.D. (Burlington) — Mount Holly

FIRST VICE-PRESIDENT
Alfred A. Alessi, M.D. (Bergen) — Hackensack

SECOND VICE-PRESIDENT
George L. Benz, M.D. (Essex) — Newark

IMMEDIATE PAST-PRESIDENT
John S. Madara, M.D. (Salem) — Salem

SECRETARY
Arthur Bernstein, M.D. (Essex) — Maplewood

TREASURER
Rudolph C. Gering, M.D. (Mercer) — Trenton

Trustees

CHAIRMAN
James S. Todd, M.D. (1980) (Bergen) — Ridgewood
Meyer L. Abrams, M.D. (1979) (Burlington) — Willingboro
Augustus L. Baker, Jr., M.D. (1979) (Morris) — Dover
Edward G. Bourns, M.D. (1978) (Union) — Westfield
Frank Campo, M.D. (1978) (Mercer) — Trenton
S. Thomas Carter, Jr., M.D. (1978) (Camden) — Collingswood
John J. Crosby, Jr., M.D. (1978) (Hudson) — Jersey City
Anthony P. DeSpirito, M.D. (1979) (Monmouth) — Neptune City
Sherman Garrison, M.D. (1980) (Cumberland) — Bridgeton
Armando F. Goracci, M.D. (1979) (Gloucester) — Woodbury
William Greifinger, M.D. (1978) (Essex) — Belleville
Richard E. Lang, M.D. (1978) (Passaic) — Passaic
Howard D. Slobodien, M.D. (1978) (Middlesex) — Perth Amboy
Frank Y. Watson, M.D. (1980) (Essex) — Montclair

Councilors

FIRST DISTRICT
(Essex, Morris, Union, and Warren Counties)
Merton L. Griswold, Jr., M.D. (1978) — Plainfield

SECOND DISTRICT
(Bergen, Hudson, Passaic, and Sussex Counties)
John L. Olpp, M.D. (1980) — Englewood

THIRD DISTRICT
(Hunterdon, Mercer, Middlesex, and Somerset Counties)
Albert F. Moriconi, M.D. (1979) — Trenton

FOURTH DISTRICT
(Burlington, Camden, Monmouth, and Ocean Counties)
Frederick W. Durham, M.D. (1978) — Haddonfield

FIFTH DISTRICT
(Atlantic, Cape May, Cumberland, Gloucester, and Salem Counties)
John A. Surmonte, M.D. (1980) — Penns Grove

AMA Delegates

Louis F. Albright, M.D. (1977) — Spring Lake
George L. Benz, M.D. (1978) — Newark
Karl T. Franzoni, M.D. (1978) — Trenton
Frank J. Hughes, M.D. (1978) — Camden
Emanuel M. Satulsky, M.D. (1978) — Elizabeth
James S. Todd, M.D. (1979) — Ridgewood
Robert E. Verdon, M.D. (1978) — Cliffside Park

February 1978

Publication Committee
Daniel B. Roth, M.D., *Chairman*
Julio C. del Castillo, M.D.
John F. Marshall, M.D.

Editor
Arthur Krosnick, M.D.

Associate Editors
William A. Dwyer, Jr., M.D.
Bernard D. Pinck, M.D.
Richard H. Rapkin, M.D.

Assitant Editor
Marjorie D. Treptow

Advertising Office
Bettie N. Cookson

Executive Director
Vincent A. Maressa

Executive Director Emeritus
Richard I. Nevin

Manuscript Review Board
Jerome Abrams, M.D.
Francis P. Chinard, M.D.
Alfonse Cinotti, M.D.
Arthur Goldfarb, M.D.
Martin Goldfield, M.D.
Robert A. Goldstone, M.D.
M. Jay Goodkind, M.D.
Murray Kahn, M.D.
Sidney Ketyer, M.D.
Bernard J. Koven, M.D.
Henry R. Liss, M.D.
Hugh F. Luddecke, M.D.
Geobel A. Marin, M.D.
Murray Nussbaum, M.D.
Victor Parsonnet, M.D.
Leonard Policoff, M.D.
Irwin Pollack, M.D.
Benjamin Rush, M.D.
Mark M. Singer, M.D.
Leon G. Smith, M.D.
Sheldon D. Solomon, M.D.
Lloyd N. Spindell, M.D.

Published monthly (since 1904), under direction of the Committee on Publication, by The Medical Society of New Jersey, 315 West State St., Trenton, N.J. Printed in East Stroudsburg, Pa. by the Hughes Printing Co. Whole number of issues 882. Member's subscription ($5) is included in Society dues. Rates for nonmembers, $10; outside USA add $4 for postage. Single copies, $1. Address communications to *The Journal*, MSNJ, P.O. Box 904, Trenton, N.J. 08605 (609) 394-3154. Second class postage paid at Trenton, N.J. and additional entry office.

Copyright 1978 by The Medical Society of New Jersey.

Now, a new service for society members:

ANNOUNCING MEMBERLOAN... A CONFIDENTIAL LOAN-BY-MAIL SERVICE AVAILABLE TO MEMBERS ON A PREFERENTIAL BASIS FOR LOANS FROM $2,600 TO $25,000.

Special features of MEMBERLOAN:

- Memberloan is issued on your signature—no collateral is required.
- Simplicity: Application, note and disclosure statement are all in one form—just fill out, mail one copy and if approved we'll mail back your check.
- Privacy: You complete the application in private anytime, anywhere—the entire transaction is handled by mail.
- Preferred interest rates are based on the amount borrowed—you select the terms that are most convenient. Maturities from 36 to 60 months. See the table below for examples.
- Loans are on an interest bearing basis which means you pay only for the money you use, while you are using it.
- No pre-payment penalties—you may pay off your Memberloan anytime you wish. And, you can reduce total finance charges by repaying more than the monthly payment at anytime.
- Credit life insurance protection is included at no additional cost for members under age 65.

Memberloan features preferential rates—for example:

# of Monthly Payments	Amount Financed	Amount of Monthly Payment	Finance Charge	Total of Payments	Annual Percentage Rate
60	$10,000	$232.68	$3,960.80	$13,960.80	14%
48	7,500	208.73	2,519.04	10,019.04	15%
36	2,600	92.69	736.84	3,336.84	17%

How to apply for a MEMBERLOAN.

1. Send the coupon to get your one-step application/loan note.
2. Complete the Memberloan form and mail the copy to us.
3. When approved, we'll mail your check direct to you . . .

–Minimum loan amounts in Pennsylvania $5100; in Massachusetts $3100.

–If California resident, mail to Memberloan Plan, Inc., 10415 Lakewood Blvd., Downey, California 90241

Memberloan is serviced by Commercial Credit, one of the nation's leading consumer finance companies, and a major lender to business and industry.

Memberloan Plan, Inc.
4375 Wadsworth Blvd.
Wheat Ridge, Colorado 80033

Please forward a Memberloan one-step application form to:

Name _____

Street address _____

City _____ State _____ Zip _____

MEMBERLOAN PLAN, INC.

February 1978

Journal of the Medical Society of New Jersey

America's First Medical Society

Volume 75
Number 2

Pages 113-208

EDITORIALS

119 Dr. John Cochran (1730-1807)

120 New Jersey's Health Products Industry

120 Smoking and Pregnancy

ORIGINAL ARTICLES

124 Smoking and Pregnancy
Richard DeMarsico, M.D.; C. A. Gregori, M.D.; J. L. Breen, M.D., Livingston

139 Deciding: The Problems It Brings and the Problems Brought to It
Jacob E. Stump, M.D., Englewood

149 The Physician's Marriage
Sally Schoicket, Ed.D., East Brunswick

REVIEW ARTICLE

155 Recent Advances in Chemotherapy of Lung Cancer
Bernard J. Koven, M.D., Englewood

CASE REPORTS

161 Masquerading Colitis
R. K. Chessler, M.D.; W. S. Rosenthal, M.D.; C. S. Pitchumoni, M.D., Fort Lee

165 Lithium-Induced Parkinsonism Precipitated by Liquid Protein
Elmar G. Lutz, M.D., Wayne

167 Myoglobinuria and Acute Renal Failure
W. Liao, M.D.; E. Abraham, M.D., et al., Neptune

SPECIAL ARTICLE

173 Burn Care in New Jersey
H. M. Bruck, M.D.; W. A. Dwyer, Jr., M.D., Paterson

CLINICAL NOTE

177 Charcoal Hemoperfusion for Insecticide Overdose
Earl F. Nielsen, M.D., Morristown

179 **NEW JERSEY DOCTORS' NOTEBOOK**

195 **PERSONAL ITEM**

195 **ANNOUNCEMENTS**

196 **MEETINGS OF MEDICAL INTEREST**

202 **OBITUARIES**

203 **BOOK REVIEWS**

212th Annual Meeting
May 6-9, 1978
Atlantic City

When **impotence** due to androgenic deficiency is driving them apart





Android®-5 Buccal Tabs
Android®-10 Oral Tabs
Android®-25 Oral Tabs

Methyltestosterone U.S.P. – 5, 10, 25 mg.

Additional Indications:
REPLACEMENT THERAPY. When Androgen Deficiency is cause of:

- Male Climacteric
- Eunuchoidism, Eunuchism
- Post-Puberal Cryptorchidism

New Double-Blind Study ANDROID-25 vs. Placebo*

*R. B. Greenblatt, M.D.; R. Witherington, M.D.,; I. B. Sipahioglu, M.D.; Hormones for Improved Sexuality in the Male and Female Climacteric. **Drug Therapy,** Sept. 1976.

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. In the male: Eunuchoidism and eunuchism, 10 to 40 mg ; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg ; Postpuberal cryptorchism, 30 mg. **REFERENCE:** **Robert B. Greenblatt, M.D.,** and **D. H. Perez, M.D.:** "The Menopausal Syndrome," *Problems of Libido in the Elderly*, pp. 95-101. Medcom Press, N.Y., 1974. **HOW SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

BROWN **THE BROWN PHARMACEUTICAL CO., INC.** 2500 West Sixth Street, Los Angeles, California 90057

REFER TO PDR

Write for Reprints and Samples.

Rx for immediate payment of professional fees.



Thanks to a recent New Jersey law, professionals can now receive immediate payment for services by accepting Master Charge and VISA credit cards, both offered by United Jersey Bank.

Check the benefits:

- Costly bookkeeping and billing expenses will be sharply reduced.
- Immediate deposit credit on either Master Charge or VISA charges. No waiting for payment on personal billing or insurance claim responses.
- Patients will like the added convenience of being able to charge medical and dental expenses to their credit cards.

For more information, please contact Fred Lehmann, Jr., Director of Professional Credit Services, United Jersey Bank, P.O. Box 543, Hackensack, N.J. 07602. (201) 646-5444.

A FULL SERVICE BANK

United Jersey Bank
Member FDIC

547

TWELFTH ANNUAL MAIN LINE CONFERENCE
"CURRENT CONCEPTS IN MEDICINE FOR THE PRACTICING PHYSICIAN"
APRIL 13, 14, 15, 1978
VALLEY FORGE HILTON
KING OF PRUSSIA, PA.
Sponsored by
THE BRYN MAWR HOSPITAL
Affilioted with Jefferson Medical College

PROGRAM INCLUDES:

- Immunology ond Allergy
- Cordiology
- Rheumotology
- Concer
- Endocrinology
- • Plus 35 Concurrent Clinics
- • • Spouses' Progrom
- • • • And More

GUEST SPEAKERS INCLUDE:

- Gunnor Biorck, M.D., FRCP
  Professor of Medicine
  Korolinsko Institute, Stockholm;
  Member of Porlioment
- Michoel E. DeBakey, M.D.
  Choirmon, Deportment of Surgery;
  President, Baylor College of Medicine
- Williom Likoff, M.D.
  Director, Likoff Cordiovosculor Institute
  President, Hohnemonn Medicol College
  ond Hospitol
- Stephon E. Ritzmonn, M.D.
  Clinicol Professor of Pothology
  Rutgers Medicol School
- Roymond G. Slovin, M.D.
  Director, Allergy & Immunology
  St. Louis University School of Medicine

FOR INFORMATION WRITE:
Horald J. Robinson, M.D.
Director, Moin Line Conference
The Bryn Mawr Hospital
Bryn Mowr, Pennsylvonia 19010

Approved for 20 hours of Prescribed AAFP, PMS, AMA Category I CME Credit AOA and ACGPOMS approved

Registrotion Fee: $125.00
(includes 3 luncheons, cocktoils ond dinner)

THE DEPARTMENT OF PATHOLOGY
and
THE PAGE AND WILLIAM BLACK
POST-GRADUATE SCHOOL OF MEDICINE
of the MOUNT SINAI SCHOOL OF MEDICINE (CUNY)
Announce a Postgraduate Course
LABORATORY METHODS IN IMMUNOHEMATOLOGY AND BLOOD BANKING

Under the Direction of
RICHARD E. ROSENFIELD, M.D. AND STAFF
March 13-17, 1978
Monday through Friday, 9:00 A.M. to 5:00 P.M.
(5 Sessions)

This course is intended far physicions who have the laborotory responsibility far immunohematalagical diagnasis ond the safety of blaad transfusians. Quantitative approaches to ontigen ond antibody studies are explared, and the relevance of such infarmatian ta the problems of cellular survival in vivo are emphasized.

The course is divided into equal parts, one bosed primorily an enrollee performance, the other on seminor discussians of immunochemical and immunagenetic considerations in respect ta the accurrence of clinical problems. Instrumental methads, including the Auta Analyzer, are included.

Fee: $150

This course will be given at the Mount Sinai Medical Center, New York City, New York

APPLY TO: Director, The Page ond Williom Block Post-Graduate Schaol of Medicine, Mount Sinai Schoal af Medicine, One Gustave L. Levy Place, New Yark, New York 10029.
Tel.: (212) 650-6737.

EDITORIALS

Dr. John Cochran (1730-1807)

*Surgeon to Washington** was written by Morris H. Saffron, archivist of the Medical Society of New Jersey and renowned medical historian. Dealing with the life and letters of Dr. John Cochran, this important book chronicles his ascent from apprentice to an eminent "practitioner of physick" in his late teens to Director General of the Medical Department of the Continental Army at age 51. A superstar in the practice of medicine despite the fact that he held no medical degree, Cochran numbered among his patients George and Martha Washington, Major General Charles Lee and the Marquis de Lafayette.

Cochran spent an important period of his life in New Brunswick, where he developed an active practice and participated in the town's civic life. This remarkably charming, sincere, modest, and able physician was truly one of our medical forefathers, who played an important role in the birth of our own medical society—the first in the nation. In the words of Dr. Saffron:

"In 1766, only three years after his arrival in New Brunswick, Cochran became one of the prime movers in a project which alone should qualify him for the lasting respect of the medical profession. This was nothing less than an attempt to encourage all the medical men of East Jersey to unite in a society to 'enlarge the stock of knowledge and experience of the pursuit of this science.' The historian of the Medical Society of New Jersey believes that Cochran, who missed the five years of 'friendship and consulting privileges with eminent English physicians attached to British regiments,' was the one who wrote and paid for the original newspaper announcement of the organization meeting, which was held in New Brunswick on July 23, 1766. At this meeting Cochran was named treasurer and immediately ordered to head a committee to draw up a 'table of fees and rates.' In November, 1768, he was chosen president to succeed his friend, William Burnet, and retained this position for the next two years, a token of the high regard in which he was held."

The second half of Saffron's book is "The Letter-Book of Surgeon General John Cochran, 1781-1782." It is his own words in these letters which display Cochran's modesty, patience, loyalty, and concern for others. The latter was shown by repeated references to shortages of money to purchase stores and supplies for the sick and to pay his staff, a problem which obviously plagued him as officers resigned. In a letter to George Washington, Cochran explained his absence from his headquarters as follows:

"When I came to this Place on my Way from Boston to Head Quarters I found Mrs. Cochran so dangerously ill that I could not leave her but at the utmost risk of her Life, and am sorry to say that her Circumstances are such that I cannot justify myself in abandoning her at present." He went on to offer his resignation if Washington insisted on his "immediate attendance," an act which he was reluctant to do since he had been so active in the Revolution and "should be sorry to retire until we see the end of it."

Cochran did not retire, but lived to age 77, after a final stage of his career as "Commissioner of Loans of the United States for the State of New York." In that position he was scrutinized by Alexander Hamilton, the Secretary of the Treasury.

Morris H. Saffron, M.D., Ph.D., has had a lifelong interest in medical history, and has made major contributions to this field over a span of many years. These included the exhibit prepared in this state to celebrate our nation's bicentennial. Our gratitude and sincere congratulations are herewith transmitted to our Society's Archivist, who wrote so eloquently about the life and times of our third president.

A.K.

(See "Personal Note", page 195, this issue.)

*New York, Columbia University Press, 1977.

New Jersey's Health Products Industry

New Jersey is well known as a major provider of health services. Many have realized that this state is also a major producer of pharmaceuticals, but most of us may not have recognized just how big our health-related products industry is.

The products are ubiquitous, from the famous Johnson & Johnson Band-Aid® to and including every manner of pharmaceutical preparation, as well as devices developed by New Jersey biomedical engineers.

In order to generate a total dollar-value income of a billion or more, the health products industry must expend large dollar volumes in salaries (enough to produce $141 million in personal income taxes), sales and services ($487 million), and research ($434 million by 21 companies). This is a major infusion into the fiscal health of our state.

As providers of health services to New Jersey residents, the Medical Society of New Jersey should salute the industry which provides health products to the world in such an effective and positive manner. A.K.

Smoking and Pregnancy

In this issue, DeMarsico and co-authors make a strong case against smoking by pregnant women (see page 124). It is the responsibility of every physician to continue to hammer away against smoking, but smoking during pregnancy has been neglected by all of us. We regularly are frustrated by our inability to induce tobacco addicts to stop smoking—and worse—our failure to prevent young presmokers from starting to smoke.

But now our argument has some teeth. It is an axiom of behavior modification that fear can be used to advantage in health practices if there is an immediate action which the recipient of the frightening information can take. Those of us who treat diabetic patients have no difficulty persuading the diabetic woman who is being treated with oral hypoglycemic drugs and who becomes pregnant to stop these agents and start insulin injections. The warning that we are uncertain of the teratogenic effects of oral hypoglycemic drugs is enough to convince these mothers-to-be that insulin is safer and better during pregnancy. A.K.

Cover Photo

The cover photograph from the archives of the Medical Society of New Jersey was taken from an engraving by William Satchwell Leney (1769-1831). Dr. Cochran was a founder and president of MSNJ from 1768 to 1770. His career as chief physician and surgeon to General Washington's Army is the subject of *Surgeon to Washington* by Morris Saffron, M.D., which is reviewed in the editorial on page 119.

"The buck starts here."

That's the name of a new Blue Shield film presentation which concerns cost containment and what can be done about it. It features Dr. James H. Sammons, Dr. Russell B. Roth and others you will recognize. It's 20 minutes long.

This film is available *free* to your County Medical Society and other physicians' groups through our Professional Relations Department. One of our professional relations representatives will be glad to show it and answer questions at a convenient date.

Just call (201) 456-3250 to schedule a presentation.



Blue Shield
of New Jersey

COLBY PROCLAIMS WOMAN SUFFRAGE

Signs Certificate of Ratification at His Home Without Women Witnesses.

MILITANTS VEXED AT PRIVACY.

Wanted Movies of Ceremony, But Both Factions Are

WASHINGTON, Aug. 26, 1920—



Social Security Bill Is Signed, Gives Pensions to Aged, Job

Roosevelt Approves Message Intended to Benefit 30,0 Persons When States Adopt Cooperating Laws–He the Measure 'Cornerstone' of His Economic Progr

WASHINGTON, Aug. 1 The Social Security Bill, a broad program of unem insurance and old age and counted upon to ben 20,000,000 persons, becam day when it was signed dent Roosevelt in the pr those chiefly responsible ting it through C

Mr. Roosevelt cal "the cornerstone whic is being me s comple ri to

SENATE APPROVES 18-YEAR OLD VOTE IN ALL ELECTIONS

Amendment to Constitution is Sent to House, Where Passage is Expected

WASHINGTON, March 10, 1971—The Senate approved today 94 to 0, and sen

TRUMAN CLOSES TED NATIONS CONFEREN ITH PLEA TO TRANSLATE CHARTER INTO DEEDS

NEW WORLD HOPE

President Hails 'Great Instrument of Peace,' Insists It Be Used

HISTORIC LANDMARK

Meeting Gives Standing Ovation as Executive Pictures Peace Gain

"If we fail to use it," he declared to the solemn final meeting of the delegates, 'we shall betray all of those who have died in order that we might meet here in freedom and safety to create it.'

"If we seek to use it selfishly—for the advantage of any one nation or any small group of nations—we shall be equally guilty of that betrayal."

Fervent Interpolation

The President, speaking in the auditorium of the War Memorial Opera House, built in memory of sons of the Golden Gate city who gave their lives in the first World War, in which he himself served, seemed to give unconscious expression to the solemn feeling of the occasion when, at the outset of his speech, he interpolated the words, half a hope, half a prayer:

"Oh, what a great day this can be in history!"

Just before the plenary session

SIGN

the Draf Ends No

WASHINGTON, Jan. 27, 1973—"With the signing of the peace agreement in Paris today, and after receiving a report from the Secretary of the Army that



PATIENT PACKAGE INSERTS: A CONCEPT WHOSE TIME HAS COME?

The consumer's right to know is an irreversible and desirable trend of the Seventies. It extends, and properly, to a patient's right to know more about his or her prescription medications. One way, gaining favor, is through patient package inserts. Wisely-prepared and properly distributed when medically indicated, they could markedly improve patient knowledge and drug therapy—laudable goals by anyone's standards.

The PMA endorses these goals and will work with government, the health professions and consumers to achieve them.

The Advantages

The concept holds promise of benefits: better patient understanding of the product prescribed, better adherence to the treatment plan, and more awareness of possible side reactions.

Every doctor has had patients who fail to finish antibiotic regimens because they feel better. Some patients assume that if one tranquilizer or analgesic is good, two may be twice as good. Still others fail to report dizziness while on antihypertensive therapy —and so on.

Problems like these might arise less often if the patient received written information in addition to verbal instructions. Some studies suggest that patients are more receptive to such materials, and they more often understand the verbal instructions and follow them, when inserts are used.

The Disadvantages

There are also some potential problems. Obviously, the inserts must be clearly phrased, without extraneous or complex detail. How much information is enough? How can it be kept current? Should all patients receive the same information? Should inserts be included with all drugs? Should only potential problems be listed or are patients better off with a "fair balance" presentation that describes usefulness as well as drawbacks?

These and similar questions require answers, since model inserts have yet to be properly developed and tested. Despite the need for these studies, the FDA is proceeding prematurely with inserts on selected products. We think the Congress is the only place where the matter can be given the proper legal status and direction, particularly since it represents a conceptual change in the legal, medical and social framework of the nation's prescription drug information system.

The Solution

The PMA believes that carefully-devised pilot studies of various kinds of inserts are needed. They should be developed and implemented with full participation by doctors, pharmacists, consumers, communications experts and the drug industry. Such studies will provide reliable pathways to follow, so that inserts will be useful aids to medical practice.

And particularly we think that you should be closely involved in this debate and in these studies and decisions. Otherwise, people with less experience and qualifications may control the purposes, content and use of a tool with considerable promise for improved patient care. It could make a difference in your practice tomorrow, and more importantly, in the health of your patients.

PMA
THE PHARMACEUTICAL MANUFACTURERS ASSOCIATION
1155 FIFTEENTH ST., N. W. WASHINGTON, D. C. 20005

ORIGINAL ARTICLES

With the increasing number of women smokers, a greater concern has been shown for the possible effects of maternal smoking on the fetus during pregnancy. Numerous epidemiologic studies have attempted to elucidate these possible effects which include lower birth weight, increased incidence of abortion, and perinatal death, as well as a slight increase in pregnancy complications, with the exception of toxemia. Long-term effects of maternal smoking on the child also must be considered. The possible mechanisms mediating these effects are discussed.

Smoking and Pregnancy

Richard DeMarsico, M.D., Caterina A. Gregori, M.D., and James L. Breen, M.D., Livingston*

Since the introduction of tobacco into European society there have been reports of its ill effects. It has been two decades since the publication of the first epidemiologic reports that implicated cigarette smoking as an etiologic factor in lung cancer and other diseases. During these years cigarette smoking by men has declined considerably but the decrease has been less in women. According to recent estimates, almost one-third of the adult women in this country smoke cigarettes.[1]

Initial studies dealt largely with the smoking experience by men, in whom the association of multiple disease states with cigarette smoking is now well documented. More recently, it has become clear that women, as well as men, expose themselves to increased risk of disease and death by smoking: diffuse pulmonary fibrosis in women has been shown by x-ray, lung cancer rates in women are going up rapidly, and there is evidence of an increase in sudden death among women. All these changes seem to be associated with smoking.[1]

With the increasing number of women smokers and the ever-growing concern about environmental effects on the fetus, the relationship of smoking to the outcome of pregnancy has become an important issue. This paper, through a review of the current literature, attempts to summarize the suspected effects of smoking on the mother and infant, as well as to discuss possible mechanisms that cause such effects.

*This study is from the Department of Obstetrics and Gynecology, Saint Barnabas Medical Center, Livingston, where Dr. DeMarsico is Senior Resident, Dr. Gregori is Associate Director, and Dr. Breen is Director. Dr. Breen is also Clinical Professor of Obstetrics and Gynecology at Jefferson Medical College, Philadelphia.

Infant Birthweight

Smoking by mothers during pregnancy has been associated with a reduction in mean birth weight of their infants. This observation, first made by Simpson[2] in 1957, has been confirmed by many investigators. The Surgeon General of the United States found that the reduction in mean birth weight in over 100,000 infants of smoking mothers reported in 18 studies was 173 grams.[3] In individual reports, reductions in mean birth weights of infants of smoking mothers ranged from 40 to 400 grams.[4,5]

Yerushalmy[6], in 1972, doubted the whole concept of a cause-effect relationship between smoking and low birth weight. The sample of mothers in his study was divided by race and into four groups: (1) nonsmokers, (2) smokers (all pregnancies), (3) smokers who gave birth to infants before they started smoking, and (4) past smokers who gave birth to infants before they quit smoking. No women were older than 25 years. In Caucasian women, Group 3 had a significantly higher frequency of low birth weight infants than did Group 4. The trend was similar in black women. This unexpected result would indicate, according to the author, that there were factors other than smoking which cause the smoker to have low birth weight infants and that these factors are present even before the individual starts smoking but are not present in a smoker who will subsequently quit smoking. In his study, he attempted to show that the smokers and nonsmokers differed markedly along several environmental, be-

havioral, and biologic variables. For example, smokers are less likely to use contraceptive methods and to plan the pregnancy. The smoker is more likely to drink coffee, beer, and whisky; and the nonsmoker, tea, milk, and wine. The smoker is more likely than the nonsmoker to indulge in these habits to excess. In general, the nonsmokers are revealed to be more moderate than smokers who are shown to be more extreme and carefree in their mode of life. Some biologic differences also were noted between them. For instance, smokers have a higher twinning rate (true only for whites), and their age at menarche is lower than that of nonsmokers. These findings led the author to conclude that the observed differences in incidence of low-birth-weight infants may be due to the smoker, not the smoking.

Yerushalmy's findings have led to marked controversy. Most investigators have found his explanation somewhat difficult to accept intellectually. As pointed out by Lubs[7], a number of variables, suspected to influence the rate of low birth weight infants, were not controlled in his study. Above all, these include the number of cigarettes smoked daily, as well as parity, age, and prepregnant weight. No attempt was made to establish if a dose-response relationship existed between the number of cigarettes and the frequency of low-birth-weight infants.

The weight of evidence, however, strongly suggests a causal relation between cigarette smoking and retardation of fetal growth. Lowe[8] showed that the relation between cigarette smoking and birth weight did not depend on the age, parity, or body weight of the mother; Frazier *et al.*[9] similarly found it independent of the age or education of the mother or whether she worked in early pregnancy. Herriot *et al.*,[10] in a study of 2,745 women, found that smoking was most common in the lower social classes (56.6 percent) who also tended to continue smoking during pregnancy. The habit was less common in the higher social classes (37.6 percent) where women more frequently reduced their smoking during pregnancy. They also found that the incidence of smoking increased with parity. In babies of mothers who smoked, the mean birth weight was lower and prematurity rate (less than 2500 grams) higher. This was seen in both primigravidas and multigravidas and in each of their height/social class groupings. They also noted a greater difference in birth weight in women of lower classes as compared to the higher classes. However, they were not able to relate the effect to the amount smoked. Zabriskie[11], in a study of 2000 consecutive single births of 947 smokers and 1043 nonsmokers, found that women who smoke have infants weighing an average 229 grams less than those of nonsmokers; the prematurity rate (less than 2500 grams) was 2.5 times higher among infants born to women who smoke; and that there was no appreciable difference in factors that may adversely affect the birth weight, such as age, parity, blood pressure, pulse rate, weight gain, or incidence of toxemia among smokers and nonsmokers. Underwood *et al.*,[12] in a study of over 16,000 pregnancies, in contrast to Herriot *et al.* found that the lowest socioeconomic group smoked less. They also found a progressive decrease in differences of birth weights between smokers and nonsmokers with decreasing economic status. In private white patients they found a 353 gram difference, but among indigent blacks the difference was 115 grams. Overall, they noted that the decreased birth weight increased with the number of cigarettes smoked daily and the socioeconomic status. Savel and Roth, in an earlier study,[13] had similar results which showed a difference of 363 grams in their white patients and 205 grams in their black patients between nonsmokers and smokers. Comstock *et al.*[14] found that mothers in their twenties had fewer small babies than mothers under 20 and over 30. At all maternal ages, smokers had more low birth weight babies than nonsmokers. Also, they found that the frequency of low birth weight among first-born infants was only slightly greater if the mother smoked, but the excess of small babies of higher birth order among infants born to smoking mothers was marked.

The extent to which growth is impaired seemed to depend on the amount smoked. Bernhard[15], however, found a smaller effect on birth weight for heavy smokers than for moderate ones which suggests a tolerance to smoking.

Murphy and Mulcahy[16], in a study of 10,692 patients, confirmed the marked reduction in average infant weight in smoking mothers as compared to nonsmokers. They found a gradual and substantial drop in average infant weight with increasing smoking, up to 10 to 12 cigarettes per day, but there was no significant change in the average infant weight as the daily cigarette consumption increased above 12 per day. They also noted that the lower infant weight was independent of maternal age and parity.

The influence of smoking is said to be most evident in the latter months of pregnancy.[8] Russel *et al.*[17] observed the effect on birth weight throughout pregnancy but it appeared most significant in infants born between the 38th and 42nd weeks. Herriot *et al.*[10] found that when mothers stopped smoking early in pregnancy their infants at term were lighter than those of nonsmoking mothers. Underwood *et al.*,[18] in their study of 48,500 women with single pregnancies, suggested that smoking in any trimester will decrease birth weight. They also found that heavy smoking (30 or more cigarettes daily) did not significantly decrease birth weight over those of their moderate group (11-30). Also, they found that smoking by fathers did not affect the pregnancy outcome nor the use of filter tip cigarettes influence the effect of smoking on birth weights. It also has been shown clearly that the pre-conceptual smoking habits of the mothers or father has no significant effect on the infant weight.[19,20]

Russel *et al.*[21] found that the positive association between light babies and smoking mothers was independent of maternal age, height, parity, educational level, attitude to pregnancy, work during pregnancy, father or consort's social class, sex of the child or prematurity. What then is the explanation for this weight reduction? Is it that infants of women who smoke during pregnancy are born early, are born "small for dates" or alternatively that their lower weight is a reflection of some other influence associated with smoking?

Length of Gestation and Prematurity

Simpson[2] noted a seven percent incidence of prematurity (less than 2500 grams) in smoking mothers compared with a 3.3 percent prematurity rate in nonsmokers. Underwood *et al.*[18] noted that with maternal smoking, prematurity by birth weight and gestational age was significantly increased. Prematurity by birth weight rose directly with the number of cigarettes smoked. Prematurity by gestational age did not rise proportionally.

In the last few weeks of pregnancy, the average fetus is gaining weight at the rate of about 150 grams per week. Since the length of gestation can influence birth weight considerably, Herriot *et al.*[10] analyzed their data according to weeks of gestation, calculated from the last menstrual period. They found that at each week, regardless of parity, and in males and females, the mean birth weight was lower in babies of smokers than in babies of nonsmokers. They also found that the gestation period was slightly shorter in smokers than in nonsmokers. The proportion of primigravidas who were delivered before the 38th week was 6.1 percent for nonsmokers and 7.9 percent for smokers; in multigravidas the proportions were 5.5 percent and 8 percent. The average length of gestation varied only by one to two days in the two groups but this was found to be statistically significant. However, when they looked at all their births that were considered term (280 ± 14 days), the effect of the length of gestation was largely eliminated. Among this group, both in primigravidas and in multigravidas, the average birth weight was lower in the infants of smokers than in those of nonsmokers in each of their social class/height subdivisions. Savel and Roth[13] in a study of 1415 patients found that the principle effect of maternal smoking was on the weight of the infant and not on the length of the gestation. The onset of labor was slightly earlier in white smokers than in nonsmokers but this did not seem significant to the authors since the number of prematures in those who smoked 20 or more cigarettes daily and delivered at 36 weeks or earlier was the same as those who did not smoke. Buncher[22] in a study of 49,897 live single births, on the basis of average expected weight gain, calculated that 10 percent of the weight difference of children of smoking and nonsmoking mothers was due to shortened

gestation and that the remaining 90 percent was associated with other characteristics acting independently of the duration of gestation.

Lubs[7], in 1973, published a study that was undertaken to determine whether there were racial differences in the association between maternal smoking and prematurity as defined by low birth weight, short gestation (less than 37 weeks), and clinical prematurity. The study included 3,415 Caucasians and 783 blacks. There was a significantly increased rate of prematurity in blacks regardless of smoking. In both races, smoking was found to be associated with the frequency of low birth weight and clinically premature infants in a dose-response manner but did not shorten the gestation time. There was also a significant racial difference in the strength of the association between smoking and clinical prematurity. Among blacks, the group who smoked the most (30 or more cigarettes a day) showed a five-fold increase in the frequency of clinically premature infants over nonsmoking black mothers, whereas, the increase in the prematurity rate in whites among heavy smokers was 2.3 times higher than in white nonsmokers. The influence of various socio-economic factors on the rate of prematurity was found to be comparatively smaller than the effect of smoking and race.

"Small for Dates"

Since the length of gestation is not significantly affected by maternal smoking, the answer for the lighter infants of smoking mothers must be sought elsewhere. Gruenwald[23] described two types of fetal growth retardation. He believed that the "long, thin baby" was the result of wasting that occurred during a period of days prior to birth and that in the second type there was a general cessation of fetal growth extending over a period of weeks before birth, with the result that deficits in body weight and length at birth were proportional.

Miller *et al.*,[24] in a study of 1,112 term infants, were able to recognize these two types of fetal growth retardation. One type was characterized by an abnormally low ponderal index (defined as birth weight in grams x 100 divided crown-heel length in cubic centimeters). The other type of growth-retarded infants had ponderal indices that were not significantly reduced but had abnormally short crown-heel lengths for fetal ages. Both types were observed under all conditions studied. However, mothers who smoked cigarettes during pregnancy were more likely to have infants with short body lengths for dates, where mothers who had low weight gain in pregnancy were more likely to have infants with low ponderal indices. Social group, prepregnancy weight, parity, marital status, and fetal sex were found to be less determinant of fetal growth than were maternal weight gain and smoking habits.

Patients with this second type of fetal growth retardation also were noted to have smaller placentas than those with normal fetal growth. In 20 of these patients with short body lengths for dates, the placental weight was documented to be 465.5 grams ($\pm$ 91.6 S.D.), whereas in 26 consecutive normal white patients, placental weight was 597.7 grams ($\pm$ 125 S.D.). In addition, about 20 percent of the short body length for dates infants were noted to have placental abnormalities, including large areas of grossly infarcted cotyledons, succenturiate lobes, and circumvallate placentas.

These placental changes have not been confirmed by other studies. Mulcahy *et al.*[4] studied 100 mothers of term infants who were free from all significant medical and obstetrical complications. Fifty were nonsmokers and fifty were smokers of 10 or more cigarettes daily. All were between 20 and 30 years of age and para three or less. Their study confirmed the marked difference (396 grams) in average birth weights in smoking and nonsmoking mothers. However, they were not able to show any difference between the average weight and the macroscopic appearance of the placentas of the two groups.

Wingerd *et al.*,[25] in a study of over 7000 pregnancies, found that the mean ratio of placental weight to birth weight was higher in infants of heavy smokers (greater than 20 cigarettes daily) compared to nonsmokers and this difference was distinct for each week of gestation (37

through 43). In light smokers (less than 20 cigarettes daily), placental ratios occupied an intermediate position between those of heavy smokers and nonsmokers. Their explanation for the elevated placental ratio in smokers was that the decrease in birth weight was not accompanied by a similar decrease in placental weight.

Abortions and Perinatal Mortality

Numerous studies have shown that babies of smokers are smaller at birth than those of nonsmokers. But there has been controversy over the occurrence of effects on the offspring other than the mere lowering of birth weight. Some studies have shown such effects, others have not.

Zabriskie[11] in his study of 2,000 women who delivered in an army hospital in Hawaii found a significant increase in abortions associated with smoking. The nonsmokers in this study gave a history of having aborted 8.8 percent of all pregnancies, while smokers aborted 12.6 percent. The incidence of abortions was found to increase with the number of cigarettes, except for the very heavy smokers (greater than 30 cigarettes daily). The perinatal mortality was not looked at in this study. O'Lane[5] had similar findings in a study of 1,031 single deliveries. Smokers gave a history of 12.6 percent abortion rate compared to 8.9 percent for nonsmokers. However, he could not find any association between perinatal mortality and smoking. Underwood *et al.* (1965)[12] also found a slight but significant increase in abortions, but no increase in stillbirths for smoking mothers. Underwood *et al.* (1967)[18] in a study of 48,500 women with single pregnancies delivered at 44 worldwide naval installations found that the perinatal mortality was not significantly different between smokers (20.8) and nonsmokers (19.7). Moreover, this lack of significant difference was present when perinatal mortality was divided into neonatal deaths and stillbirths. The perinatal death rate in premature infants classified by birth weight (less than 2500 grams) was significantly lower among smokers. Yerushalmy[26] in a study of nearly 10,000 white and over 3,000 black gravidas representing all pregnancies in a six-year period in the Kaiser Hospital in Oakland, California found no significant difference in perinatal mortality between nonsmokers (11.0) and smokers (11.3) in the white population. However, there was a significant difference found in the blacks when comparing nonsmokers (17.1) to the smokers (21.5). Also he observed a significant decrease in perinatal mortality among premature infants (less than 2500 grams) born to those women who smoked in both races.

Schoeneck[27], in 1941, in a study of rabbits exposed to cigarette smoking found a ten-fold increase in stillbirths and a three-fold increase in neonatal deaths. Though it is sometimes dangerous to extrapolate from animal models to human conditions, an association between maternal smoking and increased perinatal mortality also has been seen in human studies. Butler *et al.*[20] found such an association in a study of some 17,000 singleton births in England, Scotland, and Wales during a one-week period in 1958, and on nearly 7,000 late fetal and neonatal deaths, the increase in late fetal rate being 30 percent and in neonatal death rate being 26 percent. Rush and Kass[28] in 1972 reported on a study of 1,020 women who were studied prospectively during pregnancy. An additional 2,256 women were studied in an assessment of perinatal mortality. Black smokers were found to have an excess (86 percent) mortality over nonsmokers. Among whites, the effect of smoking was of a small magnitude, with an 11 percent excess mortality. Loss among blacks was more frequent in early pregnancy; among whites, late loss was slightly more common. The stillbirth/neonatal death ratio was independent of race and smoking. The death rates were similar for primigravidas and multigravidas, except among smoking black primigravidas who had the highest rate of perinatal loss of any group (71). Also, the authors reviewed the English language literature and reports of 12,388 perinatal deaths and abortions were compiled. They found that within many small series, mortality differences were discounted because of small numbers. However, when looked at in total, the association between maternal smoking and perinatal loss was found to be impressive with smokers having an excess perinatal loss of 33.4 percent. Where

reported, excess loss was higher among the poor or among blacks which was consistent with their own study.

Although the literature on smoking and perinatal loss may seem confusing and contradictory, Mausner[1] feels that an overall pattern of increased fetal loss that is related to maternal smoking has emerged. It is not surprising that all the studies have not shown this relationship. Differences in rates of loss between nonsmokers and smokers appear to be greater in the prenatal than in the postnatal period. Yerushalmy's[26] figures were based on neonatal mortality only. Furthermore, many forces affect perinatal mortality. Among them are ethnicity and social class, age, parity, and prior fetal loss of the mother, multiple versus single birth and the sex of the infant. One would not expect to find marked differences in perinatal mortality between smokers and nonsmokers unless the effect of the other factors associated with fetal loss had been neutralized by analytical procedures. Mausner believes that in those studies in which no differences were found they had not corrected for the multifactoral nature of perinatal mortality.

Other Possible Effects of Cigarette Smoking, including Complications of Pregnancy

The sex of the infant is one of several important factors that may affect birth weight. In fact, Herriot *et al.*[10] noted a statistically nonsignificant reduction in male births in their study, while Ravenholt *et al.*[19] noted an appreciable reduction in males among the liveborn children of smoking mothers. However, in several large studies, [18,29] the sex ratio was found to be independent of maternal smoking during pregnancy.

A very interesting finding has been the lower incidence of toxemia among women who smoke during pregnancy. Underwood *et al.*[18] first noted this in their large study. They found that both mild and severe pre-eclampsia decreased proportionally to a significant degree with the number of cigarettes per day. Also, they noted that the maximum effect was reached with moderate smoking (11-30 cigarettes daily). Duffus and MacGillivray[30] studied 2543 primigravidas of which 37 percent were smokers. They also found a reduced incidence of toxemia in the smoking group (2.4 percent compared to 5.2 percent) which was statistically significant. They did not observe a significant difference between the 20 week weight and the 20 to 30 week weight gain in the two groups. This is pertinent as it has been shown that there is a definite association between high weight gain from 20 to 30 weeks gestation and the subsequent development of pre-eclampsia.[31] There was also little difference in the gestation length of the babies in the toxemic smoking group and the toxemic nonsmoking group; but, whereas 34.8 percent of babies in the smoking group were less than five pounds only 18.3 percent of babies in the nonsmoking group were less than five pounds. There was a striking difference in the perinatal mortality between the two groups; 21.7 percent of the infants of mothers who had pre-eclampsia and who smoked died, whereas, in the nonsmoking pre-eclamptic group the perinatal mortality was 8.5 percent. Andrews and McGarry[32] in their study of over 18,000 maternities confirmed the findings of Duffus and MacGillivray[30] that there is not only a favorable effect of smoking on the incidence of toxemia in pregnancy, but that there is an increase in perinatal mortality if hypertension is present in a woman who smokes during her pregnancy. They postulated that when hypertension does occur there is already an element of poor fetal growth which, if associated with smoking during pregnancy, contributes to the higher perinatal mortality.

Underwood *et al.*[18] found that the incidence of pyelonephritis, abruptio placenta, and placenta previa did not show a direct relationship to the amount smoked; however, when these complications were combined, the smokers had a significant increase. Andrews and McGarry[32] found that both abruptio placenta and antepartum hemorrhage of uncertain origin occurred more frequently among those women who smoked during pregnancy. Lubs[7] in her study found that in both white and black races there was a small but significant increase of complications of pregnancy (all types com-

bined) in smokers as compared to nonsmokers: 42.2 versus 32.2 percent in whites and 47.5 versus 36.7 percent in blacks. The black mothers had a higher prevalence of complications of pregnancy than white mothers. No single complication seemed to be markedly increased in the smokers; rather, they found only a slight increase in many of them. Among whites, the increase in smokers was found to be significant for pre-eclampsia, hypertension, severe anemia, and for bleeding. In blacks, a significant increase was obtained for kidney disease, bleeding, premature rupture of membranes, and severe anemia. There also was observed an increased frequency of infants with low apgar scores (less than 7) and of infants treated in the special care unit in children of mothers who smoked, in both races, compared to nonsmokers. Underwood *et al.*[18] also noted an association between premature rupture of membranes and maternal smoking. However, Andrews and McGarry[32] were not able to confirm this. Also, maternal smoking has not been shown to affect the mode of delivery significantly.[18] Lowe[8] showed a reduced incidence of induction of labor among women who smoked and this finding has been confirmed by others.[10,52] In several studies[7,29,33] that looked at the incidence of malformations of infants among mothers smoking during pregnancy, no differences were found that were unaccounted for by maternal age and parity. However, Underwood *et al.*[12] found a nonsignificant decrease in the incidence of major fetal anomalies among smokers. In the series studied by Andrews and McGarry[32] they found that the mother who smoked during pregnancy appeared to be slightly more at risk of having an infant with cleft palate or harelip. Overall, studies of the teratogenic effects of smoking in man have been inconclusive.[35]

Possible Long-Term Effects of Maternal Smoking on the Child

Because of increasing concern for the prevention of long-term neurological and intellectual handicaps in children, more attention has been focused on the identification of factors, biological and/or environmental, which may adversely affect fetal growth. In general, the lowest risks of neonatal death and the greatest likelihood of optimal physical and intellectual development are experienced by children weighing 3000 grams or more at birth. The chance of an adverse outcome increases as birth weight decreases below this level. Because of the very strong association between maternal smoking in pregnancy and lowered birth weight and the fact that maternal smoking is a potentially controllable environmental factor, the possible adverse effects on the fetus are of some consequence.

Miller *et al.*[24], in their study, found that term infants with low ponderal indices exhibited large appetites soon after birth and have accelerated growth, so that by three to six months after birth they caught up in weight to infants normally grown *in utero*. On the other hand, the short-for-dates infants, who were associated most closely with maternal smoking, had ordinary appetites and generally continued to grow after birth on the same low percentiles for height and weight as they exhibited at birth. Such findings suggest a continued effect of maternal smoking during pregnancy on the offspring.

Hardy and Mellits[35], in a study comparing 88 inner city children born to mothers who smoked 10 or more cigarettes daily throughout pregnancy with pair-matched control children of mothers who did not smoke, found that body weight (average of 250 grams) and length (average of 1.3 cm) differences were demonstrated at birth. However, when the children were re-examined at one, four, and seven years there were no longer significant differences in weight. The difference in height (1.1 cm.) was significant only for the first year. Furthermore, perinatal difficulties at birth, neurological status at one year, and psychological development up to age seven were not significantly different between the two groups.

Butler and Goldstein[36] published a study of 17,000 children followed from birth. At the ages of seven and eleven years, physical and mental impairment due to smoking in pregnancy had been found and these deficits increased with the number of cigarettes smoked after the fourth

month of pregnancy. Children of mothers who smoked 10 or more cigarettes a day were on the average 1.0 cm. shorter and between three and five months behind on reading, mathematics, and general ability compared with the offspring of nonsmokers. These findings were seen after taking into account a number of social and biological factors which included the mother's height, age, social class, number of older and younger children in the household and sex of the child. However, by comparison with the effects of some of these other factors such as social class and the number of older and younger children in the household, the effect of smoking in pregnancy was found to be relatively small.

Here too, the studies to date have been inconclusive. The real question of whether maternal smoking has a long-term effect, given that the child survives the neonatal period, might well depend on other circumstances affecting the child. Possibly with larger studies more meaningful answers will be obtained.

Postulated Mechanisms that Mediate the Effects of Maternal Smoking

Many careful studies on pregnant women as well as animals suggest that it is the smoking itself rather than the type of woman who smokes that is responsible for these effects. If cigarette smoking is the direct cause of these effects, no satisfactory explanation has yet been put forward to account for the mechanism of causation, despite numerous studies which have attempted to elucidate this. Tobacco smoke is a complex mixture containing upwards of 500 separate compounds in its gaseous and particulate phases.[37] Three constituents, nicotine, carbon monoxide, and cyanide, have been studied the most extensively. Most of the other tobacco smoke constituents are present in very small amounts and it generally has been considered that they are not harmful.[38]

There has been speculation that nicotine which is present in cigarette smoke may cause uterine vasoconstriction, reduced maternal appetite, or in some way produce metabolic changes in the mother and/or the fetus. There also has been speculation that the increased incidence of placental separation reported among women who smoke is evidence of a nicotine effect though this complication also is associated with fetal growth retardation in nonsmokers.[32] The presence of normal fetal breathing movements is a good index of fetal health, being reduced by fetal hypoxia, acidemia, and hypoglycemia. Cigarette smoking also causes a statistically significant reduction in the incidence of fetal breathing movements in normal pregnancies.[39] Manning and Feyerabend showed that it was the nicotine that was responsible for this effect.[40] They also found nicotine in the cord blood of infants whose mothers smoked. Also, recently nicotine and its principle metabolite cotinine have been found in the amniotic fluid of women who smoked during pregnancy. Amniocentesis was done between 14 and 20 weeks gestation. These compounds were not detected in fluid from the nonsmokers in the study.[41]

Carbon monoxide is another constituent of cigarette smoke that has come under close scrutiny. Wynder and Hoffman[42] have shown that cigarette smoke contains up to 5 percent by volume of carbon monoxide which, when inhaled, will combine with hemoglobin to form the inactive pigment carboxyhemoglobin. This substance has been found in the blood of pregnant women and the fetus at birth.[43] A recent study by Cole *et al.*[44] has confirmed these findings. They showed that smoking raises the level of carboxyhemoglobin in the blood, with levels three times higher in mothers who smoked compared to nonsmokers. They also noted that the fetal concentration of carboxyhemoglobin was about twice that of the mother. They also showed how carboxyhemoglobin might adversely affect the fetus by an *in-vitro* study of the influence of carbon monoxide on the oxygen carrying capacity of fetal blood. These workers found that carboxyhemoglobin in fetal blood shifted the oxygen dissociation curve to the left. Therefore, the presence of carbon monoxide can reduce tissue oxygenation by combining with a portion of the hemoglobin, with reduction in the total oxygen-carrying capacity of both the mother and the fetus. In addition, the oxygen dissociation of the remaining active hemoglobin is impaired by the

presence of carbon monoxide so that at a given oxygen tension the amount of oxygen that the hemoglobin retains is increased making less available for the tissues. It has been calculated that a level of nine percent carboxyhemoglobin in the fetus is equivalent to about a 40 percent reduction of the blood flow.[45] The level of carboxyhemoglobin has been found also to be further increased in the presence of anemia and has been shown to be related inversely to the hemoglobin concentration.[46] Besides the competition between carbon monoxide and oxygen for hemoglobin, there also may be competition for enzymes, such as cytochrome oxidase and carbonic anhydrase.[45]

In a recent study,[47] the umbilical artery was chosen as a possible model for evaluating the vascular injury provoked by cigarette smoking in humans. Cords from a small group of newborn infants delivered by smoking and nonsmoking mothers were studied by electron-microscopy. Significant intimal changes were seen in the arteries from smoking mothers: the most important findings were degenerative changes of the endothelium such as swelling, blebbing, contractions, and subsequent opening of the endothelial junctions with formation of subendothelial edema. Other observations included dilation of the endoplasmic reticulum in the endothelium and reparative changes such as considerable widening of the basement membrane. Since similar changes can be induced in arteries of animals by exposure to carbon monoxide or perfusion with nicotine, the authors concluded that the results of their study supported the concept that tobacco smoking is harmful to the vascular endothelium. This and other observations point to possible intrauterine hypoxia as the possible mechanism accounting for the growth retardation and other effects on smokers' babies. Furthermore, babies of mothers living at high altitudes, who consequently have a reduced PO_2 are smaller than those of mothers living at sea level.[48] Even under optimal conditions the PO_2 of the fetus is low, but obviously satisfactory under normal conditions. However, with only a modest fall in PO_2 there may be serious interference with fetal oxygenation. Moreover, babies of mothers who smoke have a tendency to an increased metabolic acidosis up to 12 hours after birth which may be a consequence of asphyxia *in utero*.[49]

From the foregoing, a higher incidence of low estriol excretion among pregnant women who smoke might be expected. Targett *et al.*[50] did not find a significant difference in the incidence of low estriol excretion in smokers compared to nonsmokers. They did find, however, a significant correlation between low estriol excretion and both intrauterine fetal growth retardation and perinatal mortality, as well as a significant correlation between smoking and intrauterine growth retardation, but not with perinatal mortality. Also, in comparing the average placental weights, they found no significant difference between smokers and nonsmokers, confirming the findings in other studies. This is of some relevance as it has been established that at high altitudes there is a decrease in excretion of estrogen in the urine during pregnancy and an increase in placental weight.[51] In view of these findings, the authors concluded that hypoxia alone is not the influence which retards fetal birth weight in smokers.

Other factors also have been considered. The cyanide content of cigarette smoke has been implicated in an etiologic role in some of the postulated effects of maternal smoking. The effect of smoking on thiocyanate and B_{12} metabolism has been investigated by McGarry and Andrews.[52] They found that the level of serum B_{12} was lower in pregnant women who smoke than in pregnant nonsmokers and this was independent of social class, parity, or the level of hemoglobin. Also, the mean serum B_{12} level tended to be less in women who were anemic and less in those women who had smaller babies. These researchers concluded that these findings may be an effect of the cyanide content of tobacco smoke.

Cyanide is detoxicated in the body by three possible routes and is also excreted unchanged by the lungs. The principal route for cyanide detoxication is by combination with thiosulfate making thiocyanate the main metabolite of cyanide. Cyanide may also combine with

cystine and other amino acids, which might become important in women with poor nutrition where competition between fetal protein needs and detoxication of cyanide could occur. A further mechanism is possibly that cyanide combines with hydroxycobalamin to form cyanocobalamin, a physiologically inactive substance.[52]

McGarry and Andrews[52] postulated that the infant weight may be decreased in those cases where the mother already has poor body reserves of protein or serum B_{12}. In the former case, the detoxication of cyanide, using essential amino acids, may compete with fetal demand, and in the latter the already low B_{12} reserves of the mother may lead to increasing detoxication of cyanide by the thiocyanate pathway. It also has been postulated that the low serum B_{12} levels found among those women who smoke in pregnancy may only reflect B_{12} depletion resulting from conversion of tissue cobalamin to cyanocobalamin.

Concerning the mechanism for a lower incidence of hypertension in pregnant women who smoke, they postulated that the thiocyanate produced in detoxication of cyanide is responsible. Thiocyanate was once used as a hypotensive drug. Andrews[53] has shown that the amount of thiocyanate present in maternal and cord blood was significantly greater if the mother smoked during pregnancy.

It has been known for a long time that cigarette smoking causes anorexia, and that people who stop smoking gain weight. Moreover, maternal weight gain during pregnancy is known to be strongly associated with birth weight. Another possible mechanism that has been put forth is that the low birth weight of infants whose mothers smoke during pregnancy is mediated by a depressed caloric intake. Both Rush[54] and Davies *et al.*,[55] in their respective studies, came to this conclusion. Other variables studied could not account for the difference found between smokers and nonsmokers. However, in two large studies, one in France[56] and the other in Germany,[57] no relation was found between weight gain and smoking during pregnancy. Furthermore, during the Dutch famine of 1944-45, the average birth weight was reduced about 9 percent.[58] This was close to the 8 percent overall reduction in birth weight in heavy smoking mothers in the study by Davies *et al.*[55] If a reduced food intake alone was responsible, then the diets of the smoking women would have had to have been nearly as inadequate as those of the wartime Dutch. This is quite improbable.

To date, the actual mechanism that mediates the effects of maternal smoking on the fetus remains a mystery. It is possible that several of the constituents of tobacco smoke may act synergistically to bring about these effects. Also, available evidence suggests that cigarette smoking during pregnancy may interact with other risk factors, such as poor socioeconomic background, to affect the infants of certain women more harmfully than others.

Summary and Conclusion

Cigarette smoking can be dangerous to one's health. With the increasing number of women smokers, a greater concern has been shown for the possible effects of maternal smoking on the fetus. Numerous epidemiologic studies have attempted to elucidate these possible effects.

A strong association has been found between cigarette smoking during pregnancy and lowered birth weight. The weight of evidence points to intrauterine growth retardation, rather than a decrease in length of gestation, to account for the lowered birth weight. Despite some controversy, an overall picture of an increase in incidence of abortions and perinatal deaths has emerged for infants whose mothers smoke during pregnancy. When looked at in total, there appears to be a slightly greater risk for a mother who smokes during pregnancy to develop a complication. The exception to this is toxemia for which there has been found a significant lowered incidence among smoking mothers. However, when toxemia complicates a pregnancy of a woman who smokes during pregnancy, the prognosis for the pregnancy outcome is considerably worsened. There is also the possibility of long-term effects of maternal smoking on the child. Both physical and intellectual impairments have been noted, as far as eleven years after birth. Hypoxia and various

metabolic and nutritional derangements have been postulated to account for these effects. The nicotine, carbon monoxide, and cyanide content of cigarette smoke have been looked at but, to date, no satisfactory explanation has been put forth to account for these effects.

It is difficult to persuade people to stop smoking, however, if these hazards to the fetus are to be avoided, a real effort should be made to educate women on the dangers of smoking. Even if they cannot be persuaded from smoking at other times, informed women may be prepared and willing to give it up as soon as they become pregnant. Women should be told frankly that smoking puts their own lives in jeopardy and smoking during pregnancy exposes their unborn infants to unnecessary risks.

Bibliography

1. Mausner JL: Smoking and pregnancy. *Ann Int Med* 79:272, 1973.

2. Simpson WJ: A preliminary report on cigarette smoking and the incidence of prematurity. *Am J Obstet Gynecol* 73:808, 1957.

3. United States Public Health Service: The Health Consequences of Smoking: A Report of the Surgeon General. (United States Government Printing Office, Washington, 1972).

4. Mulcahy R, Murphy J, Martin F: Placental changes and maternal weight in smoking and non-smoking mothers. *Am J Obstet Gynecol* 106:703, 1970.

5. O'Lane JM: Some fetal effects of maternal cigarette smoking. *Obstet Gynecol* 22:181, 1963.

6. Yerushalmy J: Infants with low birth weight born before their mothers started to smoke cigarettes. *Am J Obstet Gynecol* 112:277, 1972.

7. Lubs ME: Racial differences in maternal effects of the newborn infant. *Am J Obstet Gynecol* 115:66, 1973.

8. Lowe CR: Effect of mothers' smoking habits on birthweight of their children. *Brit Med J* 2:673, 1959.

9. Frazier TM, Davis GH, Goldstein H, Goldberg ID: Cigarette smoking and prematurity: A prospective study. *Am J Obstet Gynecol* 81:988, 1961.

10. Herriot A, Billewicz WZ, Hytlen FE: Cigarette smoking in pregnancy. *Lancet* 1:771, 1962.

11. Zabriskie JR: Effect of cigarette smoking during pregnancy: Study of 2000 cases. *Obstet Gynecol* 21:405, 1963.

12. Underwood P, Hester LL, Laffitte T, Gregg KV: The relationship of smoking to the outcome of pregnancy. *Am J Obstet Gynecol* 91:270, 1965.

13. Savel L and Roth E: Effects of smoking in pregnancy: A continuing retrospective study. *Obstet Gynecol* 20:313, 1962.

14. Comstock GW, Shah FK, Meyer MB, Abbey H: Low birth weight and neonatal mortality rate related to maternal smoking and economic status. *Am J Obstet Gynecol* 111:53, 1971.

15. Bernhard P: Smoking in pregnancy. Effects on the fetus. *Fortsch Med* 82:133, 1964.

16. Murphy JF and Mulcahy R: The effect of age and parity, and cigarette smoking on baby weight. *Am J Obstet Gynecol* 111:22, 1971.

17. Russel CR, Taylor R, and Maddison RD: Some effects of smoking in pregnancy. *J Obstet Gynecol Brit Cwlth* 73:742, 1966.

18. Underwood PB, Kessler KF, O'Lane JM, Callagan DA: Parental smoking empirically related to pregnancy outcome. *Am J Obstet Gynecol* 29:1, 1967.

19. Ravenholt RT, Levinski MJ, Nellist DJ, Takenaga M: Effects of smoking upon reproduction. *Am J Obstet Gynecol* 96:267, 1966.

20. Butler NR, Goldstein H, Ross EM: Cigarette smoking in pregnancy: Its influence on birth weight and perinatal mortality. *Brit Med J* 2:127, 1972.

21. Russel CS, Taylor R, Law CE: Smoking in pregnancy, maternal blood pressure, pregnancy outcome, baby weight and growth, and other related factors. A prospective study. *Br J Prev Soc Med* 22:119, 1968.

22. Buncher CR: Cigarette smoking and duration of pregnancy. *Am J Obstet Gynecol* 103:942, 1969.

23. Gruenwald P: Chronic fetal distress and placental insufficiency. *Biol Neonate* 5:215, 1963.

24. Miller HC, Hassanein J, Hensleigh PA: Fetal growth retardation in relation to maternal smoking and weight gain in pregnancy. *Am J Obstet Gynecol* 125:55, 1976.

25. Wingerd J, Christianson R, Lovitt WV, Schoen EJ: Placental ratio in white and black women: Relation to smoking and anemia. *Am J Obstet Gynecol* 124:671, 1976.

26. Yerushalmy J: The relationship of parents' cigarette smoking to outcome of pregnancy: Implications as to the problem of inferring causation for observed associations. *Am J Epidemiol* 93:443, 1971.

27. Schoeneck FJ: Cigarette smoking in pregnancy. *New York J Med* 41:1945, 1941.

28. Rush D, Kass EH: Maternal smoking: A reassessment of the association with perinatal mortality. *Am J Epidemiol* 96:183, 1972.

29. Mulcahy R, Knaggs J: Effect of age, parity, and cigarette smoking on the outcome of pregnancy. *Am J Obstet Gynecol* 101:844, 1968.

30. Duffus GM, MacGillivray I: The incidence of pre-eclamptic toxemia in smokers and nonsmokers. *Lancet* 1:994, 1968.

31. MacGillivray I: Hypertension in pregnancy and its consequences. *J Obstet Gynecol Brit Cwlth* 68:557, 1961.

32. Andrews J, McGarry JM: A community study of smoking in pregnancy. *J Obstet Gynecol Brit Cwlth* 79:1057, 1972.

33. Yerushalmy J: Mother's cigarette smoking and survival of infant. *Am J Obstet Gynecol* 88:505, 1964.

34. Public Health Service: The Health Consequences of Smoking: A report of the Surgeon General, 1973. Department of Health, Education, and Welfare, DHEW Publication No. (HSM) 73-8704, January 1973.

35. Hardy JB and Mellits ED: Does maternal smoking during pregnancy have a long-term effect on the child? *Lancet* 2:1332, 1972.

36. Butler NR and Goldstein H: Smoking in pregnancy and subsequent child development. *Brit Med J* 4:573, 1973.

37. Larson PS, Hoag HB, Silvette H: *Tobacco, Experimental and Clinical Studies*. Baltimore, The Williams and Wilkins Co., 1961.

38. Younoszai MK, Pelošo J, Hawroth JC: Fetal growth retardation in rats exposed to cigarette during pregnancy. *Am J Obstet Gynecol* 104:1207, 1969.

39. Manning FA, Wyn Pugh E, Boddy K: Effect of cigarette smoking on fetal breathing movements in normal pregnancies. *Brit Med J* 1:552, 1975.

40. Manning FA and Feyerabend C: Cigarette smoking and fetal breathing movements. *Brit J Obstet Gynecol* 83:262, 1976.

41. Van Vunakis H, Langone JJ, Milunsky A: Nicotine and cotinine in amniotic fluid of smokers in the second trimester of pregnancy. *Am J Obstet Gynecol* 120:64, 1974.

42. Wynder EL and Hoffman D: In: Tobacco and tobacco smoke. *Studies in Experimental Carcinogenesis*. New York, Academic Press, 1967.

43. Young IM and Pugh LGCF: The carbon monoxide content of fetal and maternal blood. *J Obstet Gynecol Brit Cwlth* 70:681, 1963.

44. Cole PV, Hawkins LH, Roberts D: Smoking during pregnancy and its effects on the fetus. *J Obstet Gynecol Brit Cwlth* 79:782, 1972.

45. Longo LD: Carbon monoxide in the pregnant mother and fetus and its exchange across the placenta. *Ann NY Acad Sci* 174:313, 1970.

46. Dow TGB, Rooney PJ, Spence M: Does anemia increase the risks to the fetus caused by smoking in pregnancy? *Brit Med J* 4:253, 1975.

47. Asmussen I and Kjeldson K: Intimal ultrastructure of human umbilical arteries: Observations on arteries from newborn children of smoking and nonsmoking mothers. *Cir Res* 36:579, 1975.

48. Grahm D and Kratchman J: Variation in neonatal death rate and birth weight in the United States and possible relations to environment radiation, geology. *Am J Hum Gen* 15:329, 1963.

49. Younoszai MK, Kacic A, Haworth JC: Cigarette smoking during pregnancy: The effect upon the hematocrit and acid-base balance of the newborn. *Can Med Assoc J* 99:197, 1968.

50. Targett CS, Gunese H, McBride F, Beischer NA: An evaluation of the effects of smoking on maternal estriol excretion during pregnancy and on fetal outcome. *J Obstet Gynecol Brit Cwlth* 80:815, 1973.

51. Sabrevilla LA, Romero I, Kruger F, Whittembury S: Low estrogen excretion during pregnancy at high altitude. *Am J Obstet Gynecol* 102:828, 1968.

52. McGarry JM and Andrews J: Smoking in pregnancy and vitamin B_{12} metabolism. *Brit Med J* 2:74, 1972.

53. Andrews J: Thiocyanate and smoking in pregnancy. *J Obstet Gynecol Brit Cwlth* 80:810, 1973.

54. Rush D: Examination of the relationship between birth weight, cigarette smoking during pregnancy and maternal weight gain. *J Obstet Gynecol Brit Cwlth* 81:746, 1974.

55. Davies DP, Gray OP, Ellwood PC, Abernathy M: Cigarette smoking in pregnancy: Associations with maternal weight gain and fetal growth. *Lancet* 1:385, 1976.

56. Spira A: Smoking and the fetus. *Lancet* 1:1416, 1976.

57. Mau G: Smoking and the fetus. *Lancet* 1:972, 1976.

58. Susser M and Stein Z: Maternal nutrition and low birth weight. *Lancet* 2:664, 1975.

Old Short Hills Road, Livingston

Clinical experience & continuing confidence

KAON® ELIXIR was introduced in **1954,** followed by KAON® TABLETS in **1963.** Decades of clinical experience indicate acceptability, effectiveness, and safety in the majority of patients; should abdominal pain occur, therapy should be discontinued. Both have been taken by patient after patient, day after day, year after year, to correct potassium deficiencies. Both have consistently demonstrated their value when diet alone is inadequate for potassium replacement.

Kaon® Elixir
(potassium gluconate)

Kaon® Tabs
(potassium gluconate)

BRIEF SUMMARY
Kaon Tablets/Kaon Elixir

KAON® (potassium gluconate) TABLETS

Description: Each sugar-coated tablet supplies 5 mEq. of elemental potassium (as potassium gluconate 1.17 Gm.). Kaon Tablets are sugar coated, not enteric coated, which favors dissolution in the stomach and absorption before reaching the small intestine where the lesions with enteric potassium chloride have occurred. The sugar coating merely adds to palatability and ease of swallowing, not to delay absorption as does the enteric coating.
Indications: Oral potassium therapy for the prevention and treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.
Contraindications: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause.
Warning: There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides or certain other oral diuretics. These small-bowel lesions have caused obstruction, hemorrhage and perforation. Surgery was frequently required and deaths have occurred. Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Coated potassium tablets should be used only when adequate dietary supplementation is not practical.
Precautions: In response to a rise in the concentration of body potassium, renal excretion of the ion is increased. With normal kidney function, it is difficult, therefore, to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentra-

Time is the test of all things



tions of potassium ion may cause death through cardiac depression, arrhythmias or arrest. This drug should be used with caution in the presence of cardiac disease.

In hypokalemic states, especially in patients on a salt-free diet, hypochloremic alkalosis is a possibility that may require chloride as well as potassium supplementation. In these circumstances, Kaon (potassium gluconate) should be supplemented with chloride. Ammonium chloride is an excellent source of chloride ion (18.7 mEq. per Gram), but it should not be used in patients with hepatic cirrhosis where ammonium salts are contraindicated. Other sources for chloride are sodium chloride and Diluted Hydrochloric Acid, U.S.P.

It should also be kept in mind that ammonium cycle cation exchange resin, sometimes used to treat hyperkalemia, should not be administered to patients with hepatic cirrhosis.

Adverse Reactions: Nausea, vomiting, diarrhea and abdominal discomfort have been reported. The symptoms and signs of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of QRS complex, changes of the S-T segment, tall peaked T waves, etc.

Overdosage: Potassium intoxication may result from overdosage of potassium or from therapeutic dosage in conditions stated under "Contraindications." Hyperkalemia, when detected, must be treated immediately because lethal levels can be reached in a few hours.

KAON® (potassium gluconate) ELIXIR

Description: Each 15 ml. (tablespoonful) supplies 20 mEq. of elemental potassium (as potassium gluconate, 4.68 Gm.) with saccharin and aromatics. Alcohol 5%.

Indications: See Kaon Tablets.

Precautions: See Kaon Tablets.

In hypochloremic alkalosis, potassium replacement with potassium chloride (e.g., Kaochlor® 10% Liquid) may be more advantageous than with other potassium salts.

Adverse Reactions: See Kaon Tablets.

Overdosage: See Kaon Tablets.

WARREN-TEED
LABORATORIES, INC.
DIVISION OF **ADRIA LABORATORIES INC.**
COLUMBUS, OHIO 43215

BURROUGHS WELLCOME CO. MAKES CODEINE COMBINATION PRODUCTS.

YOU MAKE THE CHOICE.



EMPIRIN® COMPOUND ℂ CODEINE #3

Each tablet contains:
codeine phosphate, 32 mg (gr ½),
(Warning: May be habit-forming);
aspirin, 227 mg; phenacetin, 162 mg;
and caffeine, 32 mg.

CIII

EMPRACET™ ℂ CODEINE #3

Each tablet contains:
codeine phosphate, 30 mg (gr ½),
(Warning: May be habit-forming);
and acetaminophen 300 mg.

CIII

Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

The psychoanalytic aspects of life and death decision making are discussed. Those who decide the fate of others bring to the process their own problems of ego control, unconscious meanings, and motivations.

Deciding: The Problems It Brings and the Problems Brought to It*

Jacob E. Stump, M.D., Englewood

The matter before the panel today is the problem of deciding on someone's living or dying. It is an unpleasant subject to contemplate peacefully and quietly, let alone to act upon such a decision once made. The subject of deciding evokes ominous images of the Roman Coliseum with "thumbs up and thumbs down" determining the fate of gladiators.

There is no doubt that the need for this kind of decision making exists. Modern hospital facilities can keep a person alive for long periods of time after what is now called brain death has occurred. What we are discussing, though, is different from the usual death. The people involved in it are making a decision which one is not ordinarily expected to make. No matter how it is stated, the decision being made is whether or not to end somebody's life. It is bound to bring to mind such ideas as "Thanatopsis" or of Lear, standing over his dead daughter saying, "Never, never, never." If the poets are right, there is an opposition on the part of mankind to ending life, not only for the loss of the person but also for the loss of dreams and hopes for him.

Deciding the course of someone's life generates problems on two fronts. The first is that the decision presents society with a hard, painful fact, that fact being the aggressive content of ending someone's life. The second is that the people who decide bring to the process their own conflicts and emotional currents.

The aggressive aspect of such decision making and its effect upon society will be discussed first. The implied aggression can arouse powerful and frightening emotions on the part of both observer and decider. Though this topic implies that a decision is made concerning the life or death of a patient in a medical facility with some court-like procedure calmly determining the course of action, this is not always the case. While the patient's condition may be clear-cut, extraneous factors can be raised in order to spare his life, as in the Karen Quinlan case. There the medical criteria seemed certain, but the question of her civil rights was raised and thus prolonged the decision making. The delay, while the legal battle was being waged, served the aims of those who were opposed to any move to end her life.

To further the discussion, the topic will be broadened to include some aspects of mental functioning and the individual responses in certain unusually aggressive situations. When a person is presented with an aggressive act, his mental apparatus, henceforth called ego, is flooded with aggressive feelings and thoughts. The process is called *aggressivization of the ego.* The degree of agressivization will depend upon many factors, among them being the stability of the ego, the proximity of the event, the relationship to the victim, the ability to identify with either the victim or the deciders, and the preparation for the event, i.e., the termination of life. The person in the aggressivized state is liable to be irrational and anxious, perhaps with a fine tremor of his hands or voice. The aim of this person is to find some way of acting to undo whatever has aroused his feelings, which at this point are either rage or terror or both. This person will have angry fantasies aimed at whoever he feels is the cause of his rage. He will imagine various ways of undoing the frightening event.

Here is an example in a lighter vein. It is difficult to imagine someone going for a swim in the ocean or even a lake at night immediately after seeing the film, "Jaws." The hypothetical

*Read before the joint session of the Section on Pediatrics and the Section on Psychiatry, 211th Annual Meeting, the Medical Society of New Jersey, May 15, 1977, Atlantic City. Dr. Stump is Attending Clinical Psychiatrist, Hackensack Hospital, and Assistant Clinical Professor of Psychiatry, CMDNJ, New Jersey Medical School, Newark.

aggressivized moviegoer will have an ego flooded with aggressive images and frightening feelings. Some of the response will be due to the nature of the plot—that is, sharks eating people and, in the film, the illusion of seeing it happen. The unexpected appearance of the shark leaves the viewer unable to prepare for the aggressive act in time to master the event and to prevent the flooding process. This hapless hypothetical moviegoer will undo the aggressivization by talking about catching sharks, by reliving the fate of the shark, and by recalling some of the other frightening and humorous events in the film. He also will relive the unexpected appearances of the shark and, in this way, discharge his anxiety and gain control of the aggressive images and feelings. Within a day or so he again will be able to go swimming in the ocean, even at night, if such be his wont.

Theoretically it is possible to identify with the shark rather than with the victim and thus have a completely different set of images and responses. This person would undoubtedly think in terms of retaliating against the shark hunters.

The day after John F. Kennedy was killed, I had occasion to ride with a New York taxi driver who was tremendously aroused by the assassination, though seemingly not from affection for Kennedy. This man also owned a high-powered rifle equipped with a telescopic sight. The object of his rage was Oswald. He told me of vivid fantasies of taking his rifle and shooting Oswald repeatedly in non-fatal spots, coming closer and closer to the heart until he finally was killed. I had no doubt, at the time, that this man would have killed Lee Harvey Oswald, if he had the chance. This man was in an aggressivized state, akin to the moviegoer, although much more aroused and enraged. In all likelihood, Jack Ruby's ego was in a similar state of aggressivization when he killed Oswald later that same day.

As for the film viewer, there was for this cab driver the horrible event which flooded him with aggressive fantasies. His personal furies had been released. The situation was further complicated by his total lack of preparation for the event, and the resulting inability to discharge and thus master the rage and anxiety easily. While the murder of Kennedy was real and the movie make-believe, there are certain similarities. In the movie, there was outrage at the shark and an intensive hunt to find and kill it was launched. The taxi driver could not launch any such attack against Oswald, but did the next best thing by repeatedly reliving his fantasies of murdering Oswald. He also could relive the events of Kennedy's death and discharge some of the rage and anxiety generated by the suddenness of the assassination.

Incidentally, following this line of reasoning, one can see a potential function of the death penalty, as it allows society to discharge the rage and aggressiveness aroused by murderers.

In order to demonstrate the concept of aggressivization, extreme and disparate examples have been used. However, almost anyone presented with the concept of a killing will have some degree of this response. Most individuals, however, would have a brief and transient response, as long as they felt that the deciding was done in a proper fashion.

Group formation is another kind of response to aggressivizing experiences. The media, with the immediate widespread dissemination of news, make the formation of protesting groups much more likely. These groups can form around a common identification with the victim and discharge their aggressivized state in a common action against the aggressor, which, in the type of circumstances we are discussing today, would be the decider. Identification by the public with Karen Quinlan was made easier by the fact of her adoption and the appearance of her haunting picture in the newspapers and on television.

Again, to use an extreme example, the accounts of the desperadoes of the Old West indicate that the worst thing that could happen to them was to be put into jail. An angry mob would form and very often the outlaws would be dragged out of jail and hung. Modern literature has glorified the Sundance Kids of the Old West, but the people living there in those days knew a killer and a decider when they saw one. In most cases, they had heard stories of the

man's depredations and therefore his presence in their community, even in jail, would result in some aggressivization in their minds. The killing of the criminal was something which could be done by the group with less guilt and fear of reprisal by the law, and the anxiety of the people involved would be relieved. I am, of course, comparing the desperadoes to the deciders, but it should not be missed that there are two sets of deciders in this situation, as the group or mob also makes a decision.

In a nearby town, a group forms every Saturday across the street from a doctor's office where abortions are performed exclusively. They march in a seemingly peaceful fashion, with placards stating their objections to abortion. However, close scrutiny reveals an angry group, shaking their fists and shouting epithets in the general direction of the doctor's office. Deciding is going on over there, and these people are responding to what they see in it, that is, the ending of human life. I have no doubt that, in other times and under other circumstances, this protesting group would march into the office and take more direct action. The deciding which goes on in an abortion clinic is quite different from that which would take place in a hospital where a patient's life no longer can be meaningful.

Up to this point I have discussed what effect deciding has upon society and the individuals involved. The second front that I mentioned concerns what the individual brings to the deciding process. The problem that is common to all participants is the possibility that forbidden, unconscious fantasies will find gratification in deciding on someone's fate. The gratification could occur in any part of the process from the decision making to the execution of the decision.

For the sake of this part of the discussion, the mind will be divided into two parts, the adult mind which is called the ego and the childhood mind which is called the unconscious or id. The adult mind is the part which is realistic, rational, and able to postpone gratification of the unacceptable wishes, and with a tremendous fund of knowledge and understanding available for its use. The childhood mind is the foundation for this structure and is quite different. It is given to simpler solutions, irrational behavior and thoughts and impulses or fears that it cannot control. The child cannot postpone gratification. If he does not like something, he throws it away or spits it out. Upon learning that mommy is going to have a baby, he may pat her belly lovingly one moment and hit it the next, expressing his delight at the news and his rage at the mother and his wish to be rid of the rival. This is the state of affairs roughly before the age of six. The child does love and is thoughtful, but rage and love exist side by side in the childhood mind.

One of the problems facing the child is to weld these two features of himself together in such a fashion as to make himself civilized in the view of others and at peace within himself—that there should not be warring factions within him regarding love and hate for the people in his environment. Most people accomplish this, to a successful degree, though we all retain various incompletely resolved wishes from childhood, which, if given the proper stimulus, can be drawn into the current situation to interfere in some way with our lives. The ego may decide to act in some way that arouses an unconscious forbidden wish. The result of this conflict would be inhibition to act or symptom formation. This one-dimensional simplistic description of a small area of psychoanalytic theory is presented in order to discuss some potential and real problems arising in the process of deciding.

The arousal of these unconscious fantasies is what accounts for the onset of neurosis. Very often the triggering event for the onset will be a real or imagined injury to someone whom the neurotic both loves and hates. I recently treated an adolescent boy who saw his brother hit by a car. The brother was unconscious and remained so until after the ambulance took him away. My patient initially felt that the brother was dead, in spite of repeated assurances that this was not the case. During the early stages of the brother's long hospitalization, my patient continued to feel that the brother was dead. This was partly related to

the fact that he was not permitted to visit his brother and thus reassure himself. In addition, he felt that he was responsible for the accident in which he actually had played no part. He then began to show a number of neurotic symptoms. Here we can see the arousal of unconscious conflict and its effect upon the boy. His prolonged belief that his brother was dead is the unconscious wish from his earlier childhood. The feeling that he was responsible for his brother's accident was produced by the guilt resulting from this unconscious wish. Thus, both his love and hate are expressed in the ideas surrounding the event and the symptoms which he developed were his punishment.

If you strike a note on a piano, the same note will sound in another piano nearby. It is the same in mental life. We all have specific unconscious fantasies that can be aroused by certain external experiences. Anyone entering into the process of deciding is putting himself into the position of having his note rung, so to speak.

In most people, this either won't happen or it will be a minor event, especially as most deciding is a group activity, which tends to lessen guilt. However, there is no way to predict a person's response to emotion-laden situations.

The stability of an individual's ego will determine the extent of response to a given situation. The degree of stability depends upon how well the individual has made peace with his unconscious conflicts and gained control of unacceptable impulses. The taxi driver, as I understood him, had an unstable ego. I would postulate that it was equally as unstable as the ego of Jack Ruby. There are wide variations in the stability of ego structures. Even in Texas, many people carrying guns show signs of stability. This was especially demonstrated by the police who captured Oswald. The capture took place in a movie theater at great personal risk to the arresting officers who knew that a fellow policeman had just been killed by Oswald. The police easily could have justified killing Oswald in the movie theater on that basis alone. In other words, some people have more inner controls and can postpone actions and decisions in a way which serves reality.

The taxi driver undoubtedly had less adult functions to turn to when his ego was confronted with the Kennedy murder. His response was strong and probably based upon his unconscious fantasies of killing, as he owned a gun similar to Oswald's. I did not learn the nature of *his* targets, but recently the state of Utah had no difficulty finding hunters to volunteer for a firing squad, which would indicate the nature of *their* target interest. Thus, the assassination would have been too close to his fantasies about killing a man, arousing his fears of losing control of his impulses. A person who is more readily aggressivized does not feel as secure in the matter of impulse control as someone who is not.

If a case too closely parallels the unconscious fantasies of the decider, then he will respond in some fashion. He may or may not be aware of his response. It may be limited to an unpleasant feeling, an angry outburst, or some neurotic response such as inability to decide or act. It is function which decides normality. Most people will be able to carry out their part in the task of deciding in an appropriate fashion regardless of what it means to them. For instance, let us say a man is a victim of aggravated assault from which the chances for recovery of consciousness are zero. The attorney general orders the life support system shut down and the man dies. He then prosecutes the mugger for murder. It is conceivable that the attorney is able to gratify an unconscious death wish for a brother or a father by having the machine turned off. However, he has the advantage of being able to blame the death on someone else, the mugger. Gratification does not matter as long as he is able to carry out his duties in a satisfactory manner. On the other hand, if the childhood fantasies have not been sufficiently worked through, then my imaginary attorney would be unable to take effective action at some point in the deciding process—for instance, by not prosecuting properly.

Here is a well-known literary example of this phenomenon. In the play *Hamlet,* the prince

has discovered from his father's ghost that his uncle has murdered the father in order to get the kingdom and Hamlet's mother. When Hamlet is presented with the opportunity to kill this murdering uncle, he cannot do it. His paralysis results from his own childhood oedipal wish to do what his uncle had done, that is to kill his father and marry his mother. In other words, Hamlet's unconscious wish immobilized him and forced him into a situation of great tragedy in which all participants were punished by death.

The nature of the unconscious wish is not so important. It is the degree of gratification of the unconscious wish in the particular instance that forces the decider to avoid taking action. Some people will deny the true circumstances requiring action, while others will avoid it altogether and simply not become involved in the distasteful business of deciding someone's fate.

Not all reactions will be based upon sibling rivalry or oedipal complexes. The patients whose fates are being decided are cripples, some only by virtue of brain injury, but others will be born with birth defects which will require an immediate decision. To some people, even doctors, physical injury or damage is very difficult to face. Some are unable to tolerate the presence of a damaged person, regardless of the nature of the damage, i.e., in the eyes of some, the fact of defect in the patient will increase the likelihood of a decision made against his living. As killing itself is a form of injury, it will be more difficult for others to make a decision in the direction of ending life, and they will bend over backward to save a person whose life really has ended, i.e., to avoid further damage. I am talking, of course, about deciders who have a severe castration anxiety and cannot tolerate the idea of a missing part, be it brain or limb. They will avoid facing the reality either by denying its existence or eliminating the defective person.

There are as many ways of reacting to situations as there are people. Assuming that a man's neurotic problems are going to interfere with the deciding process, the interference will be specific to his emotional problems. For instance, some people will raise an objection to whatever is being decided, only to give in after a certain period of time and go along with the group. This person can be counted on to behave in this precise manner time after time.

Illustrative Vignettes

What follows is a series of vignettes to illustrate some of the problems.

A lady was pregnant at an age when the incidence of mongolism in the infant would be high. A test of the amniotic fluid was to be done to determine if this condition existed; if the test were positive the fetus subsequently would be aborted. Unbeknown to the obstetrician, the patient had decided that if the fetus were mongolian, she would not have the abortion. Her primary reason was that the abortion would take place after the sixth month, and she could not tolerate the idea of destroying a fully formed fetus. This reaction is a version of castration anxiety. The fact that she had a hated older sibling also may have played a role in her decision, as she could not allow her unconscious death wishes for him to find any form of expression.

A young doctor on a neurological ward had to decide what to do in the following situation. A man was dying of a progressive neurological disease in which death comes either from suffocation due to inability to breath or by drowning from aspiration of one's own saliva because of an inability to swallow. The doctor was both unprepared and unsupported when the moment of truth came. The patient's terror at his inability to breath and the nursing personnel's distress over the man's condition resulted in his being placed in a respirator by the doctor. The patient's terror was alleviated for at most a few days, as he soon realized that the condition was progressing inexorably. Once the decision had been made to use respiratory assistance, no one could pull the plug until weeks after the man had suffered brain death. The doctor later complained that he was unable to behave in a way that seemed to him like killing the patient. To have acted otherwise would have seemed to him aggressive.

In another episode, a physician in charge of a ward was presented with a microcephalic idiot. The child was seven years old and could not walk, crawl, sit up, or talk. There was no indication of anything resembling the behavior of a normal child and no reaction whatsoever to his surroundings. The child's head was about one-third smaller than normal. There was no record of any parents on the chart. During the course of performing a diagnostic procedure, the doctor attempted unsuccessfully to kill the child. This doctor did not report his feelings or thoughts to me, but, obviously, he had made a decision and acted upon it. His lack of success may have been due to some inner guilt.

I recently talked with the mother of a severely mentally defective child. She told of making plans to place the child in an appropriate home. However, the physician in charge told her that these children sooner or later get an infection and no attempt is made to cure it. Thus, the child dies. The mother thereupon cancelled her plans for placement. The child is still alive at age sixteen and resides with her, functioning at a level slightly less than that of a one-year-old infant.

In addition to unconscious motivations, this last vignette brings up other problems in the deciders. The mother I have just described was denying the degree of her child's defect by keeping him at home. I am sure that empathy for and identification with the child also played a part. This lady's life and the lives of the other members of the family were seriously hampered by the presence of this child. For instance, as the child was not toilet trained, family trips even for a day could not be taken. The possibility of sado-masochistic gratifications are raised by a case like this, i.e., that there would tend to be situations of great frustration and anger on the part of all normal members of the family, including the mother, at having to live with the unnecessary hindrance imposed by this defective child.

The doctor's behavior suggests the need to be powerful and omnipotent in telling the mother in a callous way what would be likely to happen to the child if he were put into a care facility. Such behavior may have warded off his feelings of powerlessness. After all, there is practically nothing one can do to improve the life of such a defective child; the doctor may have attempted to make himself feel more active and in control of the situation by making his prediction.

These stories emphasize the emotional reactions that arise in these delicate situations. There is too much danger of a single person responding to his own inner conflicts and being unable to handle the deciding process adequately, as was the case with the three examples. It was best to have the decision-making process done by a group of two or more people in an open situation. With a group, the guilt is shared and anxieties can be dispersed by hearing someone express the same opinions in open discussion.

Summary

I briefly have given some aspects of psychoanalytic theory to elucidate the problems in and the process of deciding someone's fate. I have stated that this process brings with it an aggressive response which has to be taken into account for successful action. The people who decide bring to the process their own problems of ego control, unconscious meanings, and motivations for deciding, which influence the final outcome in some fashion.

References

1. Brenner, Charles: *An Elementary Textbook of Psychoanalysis.* New York, International University Press, 1955.

2. Freud A: *The Ego and the Mechanisms of Defence.* New York, International University Press, 1946.

3. Freud S: *The Ego and the Id.* (Standard Edition) London, Hogarth Press, 1923.

4. Hartman H: *Essays on Ego Psychology.* New York, International University Press, 1964, pp. 142-155.

5. Hartman H, Kris E, and Loewenstein R: *Notes on Theory of Aggression in Psychoanalytic Study of Child.* (Vols. III, IV) New York International University Press, 1949.

6. Redford R: The outlaw trail. *National Geographic* 150: 622-657, 1976.

7. Corn, W: *The Art of Andrew Wyeth.* Boston, New York Graphic Society, 1973, p. 24.

240 East Palisade Avenue, Englewood

212th Annual Meeting — May 6-9, 1978

Holiday Inn and

Howard Johnson's Regency Motor Hotel

Atlantic City



Simple drops of water help make COLACE® the most widely used stool softener.

COLACE®
dioctyl sodium sulfosuccinate

COLACE works by stool-softening action alone, free from laxative stimulation. Simply by letting natural intestinal water permeate stools, COLACE helps to eliminate the hard, dry stools common to constipation.

COLACE works to prevent pain and straining at stool with minimum chance of griping or cramps, particularly in patients with delicate anorectal disorders. COLACE is safe and non-habit forming in short- or long-term therapy. COLACE—the simple water way to ease constipation from infancy to old age. Capsules, syrup or liquid.

Mead Johnson PHARMACEUTICAL DIVISION

Evansville, Indiana 47721 U.S.A.

11373

COMPATIBILITY



Eastern Tiger Swallowtail Butterfly
(Papilio glaucus)

Does it influence your choice of a peripheral/cerebral vasodilator*?

Vasodilan–compatible with coexisting diseases (e.g., glaucoma, diabetes)

Vasodilan has not been reported to affect the course of coexisting disease; it has not been reported to affect blood sugar levels or to raise intraocular pressure.

Vasodilan–compatible with concomitant therapy

Vasodilan has not been reported to affect the treatment of coexisting disease; it is compatible with such drugs as hypoglycemics and miotics.

Vasodilan–compatible with your total regimen for vascular insufficiency

Vasodilan can be a valuable adjunct in planning a total therapeutic program for vascular insufficiency.

*__Indications:__ Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows:
Possibly Effective:
1. For the relief of symptoms associated with cerebral vascular insufficiency.
2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease.
Final classification of the less-than-effective indications requires further investigation.

Composition: Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg. Vasodilan injection, isoxsuprine HCl, 5 mg., per ml.
Dosage and Administration: Oral: 10 to 20 mg., three or four times daily. Intramuscular: 5 to 10 mg. (1 or 2 ml.) two or three times daily. Intramuscular administration may be used initially in severe or acute conditions.
Contraindications and Cautions: There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.
Parenteral administration is not recommended in the presence of hypotension or tachycardia.
Intravenous administration should not be given because of increased likelihood of side effects.
Adverse Reactions: On rare occasions oral administration of the drug has been associated in time with the occurrence of hypotension, tachycardia, nausea, vomiting, dizziness, abdominal distress, and severe rash. If rash appears the drug should be discontinued.
Although available evidence suggests a temporal association of these reactions with isoxsuprine, a causal relationship can be neither confirmed nor refuted.
Administration of single dose of 10 mg. intramuscularly may result in hypotension and tachycardia. These symptoms are more pronounced in higher doses. For these reasons single intramuscular doses exceeding 10 mg. are not recommended. Repeated administration of 5 to 10 mg. intramuscularly at suitable intervals may be employed.
Supplied: Tablets, 10 mg., bottles of 100, 1000, 5000 and Unit Dose; Tablets, 20 mg., bottles of 100, 500, 1000, 5000 and Unit Dose; Injection, 10 mg. per 2 ml. ampul, box of six 2 ml. ampuls.

U.S. Pat. No. 3,056,836



VASODILAN® 20-mg tablets

(ISOXSUPRINE HCl)

20 mg q.i.d. recommended dosage

Mead Johnson
PHARMACEUTICAL DIVISION

© 1978 MEAD JOHNSON & COMPANY • EVANSVILLE, INDIANA 47721 U S A MJL 7-4237R

This asthmatic isn't worried about his next breath...



he's active he's effectively maintained on

QUIBRON®

Each capsule or tablespoon (15 ml) elixir contains theophylline (anhydrous) 150 mg and glyceryl guaiacolate (guaifenesin) 90 mg. Elixir: alcohol 15%

- high theophylline for effective around-the-clock therapy
- 100% free theophylline
- individualized theophylline dosage schedule

Indications: For the symptomatic treatment of bronchospastic conditions such as bronchial asthma, asthmatic bronchitis, chronic bronchitis, and pulmonary emphysema.

Dosage: Initial: Adults: 1-2 capsules or 1-2 tablespoonfuls elixir every 6-8 hours, children 8-12: 1 tablespoonful or one capsule every 6-8 hours and children under 8: 3 to 5 mg theophylline/kg body weight every 6-8 hours. Theophylline dosage may be cautiously increased to 2000 mg/24 hr in adults or 7 mg/kg in children; monitoring of serum theophylline levels at higher dosages is recommended.

Precautions: Do not administer more frequently than every 6 hours, or within 12 hours after rectal dose of any preparation containing theophylline or aminophylline. Do not give other xanthine derivatives concurrently. Use in case of pregnancy only when clearly needed.

Adverse Reactions: Theophylline may exert some stimulating effect on the central nervous system. Its administration may cause local irritation of the gastric mucosa, with possible gastric discomfort, nausea and vomiting. The frequency of adverse reactions is related to the serum theophylline level and are not usually a problem at serum theophylline levels below 20μg/ml.

How Supplied: Capsules in bottles of 100 and 1000 and unit-dose packs of 100; Elixir in bottles of 1 pint and 1 gallon.

Mead Johnson

PHARMACEUTICAL DIVISION

© 1978 Mead Johnson & Company • Evansville, Indiana 47721 U.S.A. MJL 6-4220R

Marital stress and strains caused by demands of the medical profession and by personality characteristics of some doctors and their mates are discussed. Consideration is given to means of alleviating such difficulties.

The Physician's Marriage*

Sally Schoicket, Ed.D., East Brunswick

The achievement and maintenance of a good marriage, at best, is not a simple task. However, when a member of the marital pair is a physician, added obstacles may impede the formation of a close and meaningful relationship. Because of the nature of their work and the inordinate demands placed on them by patients and by professional obligations, physicians may be impatient in family relationships and/or very demanding of close family members. All day, and often into the night, incessant claims may have been made on the doctor; he or she may react by insisting on special attention at home. Not rarely, the doctor may wish just to be left alone, but this may be disheartening to the spouse who wants a relationship characterized by mutual sharing and friendship. It can be particularly trying in the traditional marriage where the spouse, who is a mother of young children, eagerly has been awaiting her husband's return so she finally can have some adult companionship and be a recipient rather than a dispenser of care.

Despite the fact that the divorce rate is rising, there are many first marriages and remarriages.[1] This seems to indicate a continued faith and hope that intimacy and fulfillment can be derived from marriage. Nevertheless, some husbands and wives are impelled to relate to each other in ways that result in alienation and unhappiness.

Hidden Feelings and Detachment

A component of successful marriages, including those of physicians, is good communication. Physicians, partly because of the nature of their work, are forced to hide their feelings. This outward lack of emotional response may result in much misunderstanding and can be disastrous in family interaction. For example, a physician's wife, after learning that her brother had a serious illness, was very upset by her brother's condition as well as by her husband's seeming indifference. His response to the news was that of a neutral scientific investigator. In reality, the doctor was fond of his wife's brother, but he reacted to the report of the critical illness by donning what might be termed a professional facade.

Doctors, as well as many other people, have difficulty expressing the warmth and achieving the closeness that are needed for really meaningful relationships. Such people, who are seen both in and out of the consultation room, feel vulnerable, are afraid of personal involvements and attempt to put protective armor around themselves because of previous hurts. This may prevent them from being hurt, but it also serves to cut off many fulfilling experiences and it can make for a sense of emptiness.

Flight into Work

Being a physician does not immunize one from personal problems or illnesses. However, the magical wish that it could do so may be a factor in determining the choice of the medical profession as one's lifework. It is likely that an inordinate fear of personal malfunctioning impels many physicians to use the defense of denial when confronted with personal or family illnesses and problems. This fear may drive them to struggle incessantly to wipe out disease in others. In this way, physicians may use their overinvolvement in work as a reason for detaching themselves from areas in which they have personal conflicts.[2-6] Surely the unusual stresses imposed on physicians because

*Adapted from a paper read before the Middlesex County Medical Society Auxiliary, March 29, 1977. Dr. Schoicket is a practicing psychologist in East Brunswick and is a supervisor of psychoanalytic psychotherapy at Rutgers University Graduate School of Applied and Professional Psychology.

of the specific pressures of their work may make for difficulties in marriage as well as in all personal relationships.

A number of this writer's patients use a heavy commitment to their work as a buffer against the establishment of warmth, affection, and closeness to others. An all-consuming involvement in work may be motivated by an inordinate need for prestige and power created by underlying feelings that the more the physician does professionally the more worthwhile he or she will become. Invariably though, meaningful relationships become less likely and such individuals feel more unlovable and attempt to be even more productive in order to prove to themselves that they are worthy. When this problem is corrected through psychotherapy or, rarely, through significant life experiences, the individual no longer is compelled to perpetuate such self-defeating behavior.

Divorce Rate of Physicians

A popular opinion exists that physicians, because of unusual stresses in their work, have more difficulty achieving satisfactory marriages and have a higher incidence of divorce than other professionals. It seems axiomatic that divorce is common among those whose occupations involve irregular hours, absence from home at night, and frequent unchaperoned contact with members of the opposite sex. Although these are characteristic of the physician's life, doctors, as a group, are less prone to divorce than others. In fact, in a California research project regarding high status professionals whose work entailed the aforementioned conditions, physicians were among those who had made the lowest number of divorce petitions. The highest rate of petitions was that of authors, followed in descending order by social scientists, college faculty and administrators, lawyers and judges, engineers, chemists, editors and reporters, dentists, accountants; and in the lower echelon were physicians and the natural scientist.[7] One reason for physicians' comparative low divorce rate may be the aforementioned tendency to avoid involvement in personal matters by becoming increasingly immersed in work. In part, because of this defense the commitment to work may appear greater than to marriage or other areas. The following anecdotal material illustrates this problem.

Case Report

The patient's physician-husband worked long hours and at home was generally immersed in professional concerns and had little time for his wife. During her first pregnancy his attentiveness to his work increased and he was home even less. The prospect of becoming a parent brought certain of his conflicts to the fore and this was the way he avoided dealing with them. Although he did bring her to the hospital when she was in labor he did not stay and did not return to see her until a day after the baby was born. His profession was of a demanding nature and he easily justified to himself his being totally immersed in it.

It was not unusual for this physician to have pressing professional demands on his time during periods of family stress. This engendered much conflict and when the marital situation deteriorated, his wife's distress became extreme. She indicated that either the husband make some attempt to rectify the situation or she would leave him.

Surely this wife was faced with a trying situation but one which is familiar to many doctors' spouses. However, her feelings about herself, and prior painful experiences, caused her to feel inordinate discomfort and to have uncontrollable outbursts when her husband behaved in a detached manner. Psychotherapy helped her to understand her behavior and to gain insight into the reasons for the intensity of her upset. As a result, rather than being overwhelmed by her behavior, she became more controlled and her relationship with her husband and others subsequently improved.

Eventually the husband also went into individual therapy and was helped to understand reasons for his pattern of permitting himself to have only shallow relationships. This patient, like so many physicians, worked extremely hard and deferred gratification for many years. Indeed the ability to devote himself to professional demands was among the reasons he had been able to achieve so much. However, he continued the pattern when, in reality, it became unnecessary and consequently he was unable to reap many of the benefits of his success.

Divorce in Later Years of Marriage

Although the divorce rate of physicians may be lower than that of the general population, when doctors do divorce, it is after a longer period of marriage.[8] One postulated explanation for this is that the doctor, after a demanding premedical and medical school training program, is compelled to work long and hard hours during internship and residency. His wife frequently has been left alone during the crucial experiences of pregnancy, childbirth, and the early years of rearing the children. For these reasons and the consequent vast differences

created in their lives they grow further apart.[9] Another explanation relates to anxiety about approaching or reaching middle age and a feeling that there still is an emptiness in their lives despite success and professional achievements. Attempts to resolve the problem by establishing new relationships often do not work since the basic difficulty is more an intrapsychic rather than an interpersonal one.

The Empty Nest Syndrome

Physicians usually remain actively involved with their profession throughout their lives. This is a situation which can make the well-known "empty nest syndrome" more poignant for the doctor's wife. Since her husband has been so involved in his work, she may have invested most of her energy in her children. The difficulties that many others experience when their children no longer are dependent on them and/or leave home may be more intense for her. However, if the wife shows an interest in her husband's work and his other concerns, their relationship can be a more gratifying one and she may be less likely to be overinvested in the children. Consequently the husband, not being as apt to feel she cares for the children more than for him, may relate to her in a more positive way.

Excessive Dependency

The doctor's spouse may have an excessive need for protective care and initially may have been attracted to a physician for this reason. She may complain of numerous medical symptoms, thinking that this is the best way to get attention from the doctor mate. Some physicians' mates interpret the prescribing of drugs by their husbands as their way of indicating that they care. Conversely others believe that the physicians do not care enough since they give noxious drugs or fail to notice when more than the prescribed amount is taken. In medical marriages, it is not rare for one or both members to abuse drugs.[10-12]

The mate who expects the doctor spouse, by virtue of her or his profession, to be someone with whom he or she can be totally involved and on whom one can depend for all things, will be disappointed. Actually, contrary to expectations, the doctor may be quite passive. Failure to recognize this may result in considerable frustration and dissension.

Another aspect that may create difficulties in the medical marriage is the widely held belief that doctors are omnipotent.[13] They are considered all-giving and all-caring parental figures who selflessly cater to the needs of others. One may speculate that this is a reason for dissatisfaction among many patients. However, it is impossible for physicians to be omnipotent, all-giving parental figures either to their patients or to their mates. As a matter of fact, it is difficult to be a "good enough"[14] parent to one's children.

Physician's spouses may resent the intimate caring relationships doctors often have with their patients. Because of the nature of the doctors' contacts with patients, the physicians may be concerned and actively involved with their welfare outside of office hours and frequently may receive calls at home. Also, neighbors, friends, and relatives may make demands on the physician.

A spouse, because of feelings of inadequacy, may be envious of her physician mate's professional interests and may not want to talk to him about them. The resentment and consequent behavior may tend to separate them even more.

All this can make for marital difficulties and can be particularly upsetting if the doctor's spouse has low self-esteem, few individual interests, and an excessive need for protective care.

Reluctance To Seek Help

An academic degree, even in the heáling professions automatically does not confer mental health on the possessor. As a matter of fact, it can open the door to new personal, professional, and social stresses. Unfortunately, practitioners of the healing arts often are reluctant to get professional help for their ills. [15] An example is a mental health professional who came into treat-

ment after much hesitation and only after he tried to work things through "by the book." Finally, when he recognized that the dictum "physician heal thyself" was not helpful, he sought psychotherapy. This man felt he had no alternative, his anxiety was "unbearable" and his marriage was deteriorating. Adding to the roadblocks to his treatment was that, in a defensive way, he attempted to intellectualize and be the co-therapist. It seems easier and more familiar for doctors than for most people to take on the role of therapist rather than the role of patient.

Comments

It appears paramount that married couples have respect for themselves and for each other and that they continually work together toward achieving warm, mutually supportive, and enriching relationships. If husbands and wives take the time and make attempts to relate to each other and to make veiled messages explicit, their marriages are more likely to be characterized by empathic communication. It is important to recognize that communication is not only verbal, that actions belie words and that masks frequently are transparent and may result in more confusion. It is better to express one's thoughts than to attempt to camouflage them.

Despite the focus of this paper on problems and difficulties physicians may have in achieving good marriages, there also can be much gratification in these marriages.

References

1. Statistical Abstract of the United States, 1976. National Data Book and Guide to Sources. U.S. Department of Commerce, Bureau of Census. 1977, pp. 68-69.

2. Ellard J:The disease of being a doctor. *Med J Austral* 2: 318-323, 1974.

3. Offenberg P: The physician's disease: Success and work addiction. *Psychiatric Opinion* 12: 6-11, 1974.

4. Vaillant G, Corbin N, McArthur C: Some psychologic vulnerabilities of physicians. *N Engl J Med* 287:372-375, 1972.

5. Zabarenko R, Zabarenko L, Pittenger R: The psychodynamics of physicianhood. *Psychiatr* 33:102-118, 1970.

6. Pearson M, Strecker E: Physicians as psychiatric patients: Private practice experiences. *Am J Psychiatr* 116: 915-919, 1960.

7. Roscow I, Rose D: Divorce among doctors. *J Marriage and Family* 34: 587-601, 1972.

8. Roscow I, Rose D: op. cit. 591-593.

9. Vincient M: Doctor and Mrs.: Their mental health. *Can Psychiatr Assoc J* 14:509-515, 1969.

10. Evans J: Psychiatric illness in the physician's wife. *Am J Psychiatr* 122: 159-163, 1965.

11. Lewis J: The doctor and his marriage. *Texas State J Med* 61:615-619, 1965.

12. Vincient M: op. cit. 512-513.

13. Nunberg H: Psychological interrelations between physicians and patients. *Psychoanal Rev* 24: 297-308, 1938.

14. Winnicott D: Transitional objects and transitional phenomena. *Internat J Psychoanal* 34: 89-97, 1953.

15. Lipsitt D: The doctor as a patient. *Psychiatr Opin* 12: 20-25, 1975.

67 West Prospect Street, East Brunswick

212th ANNUAL MEETING, ATLANTIC CITY, MAY 6-9, 1978



Introducing your Purepac generic detail man.

According to recent surveys by two leading pharmaceutical journals, Purepac is the number one generic most preferred by pharmacists in the United States. Yet, it's quite possible you've never even heard of us. Simply because Purepac has no detail men.

That's good news and bad news.

Good news because we pass on all those savings in salaries directly to your patients through lower prices to pharmacists.

Bad news because we're unable to personally tell you about Purepac's quality control and new drug applications. Or that our bioequivalence is every bit as good as the more expensive national brands.

Matter of fact, Purepac generics are equivalent to all brand names in every respect, except for one... PUREPAC COSTS LESS.

So while it's true we could use the extra recognition a staff of detail men could give us, perhaps the reverse is also true. That we can get a lot more recognition by passing the savings on to your patients in every Purepac prescription.

See the Purepac listing in the white pages of the 1978 PDR.

PUREPAC

Elizabeth, NJ 07207

AMERICA'S LEADING NATIONAL BRAND OF GENERICS

National Silver Company

59 Chatham Street
Chatham, N.J. 07928

(201) 635-5910

Buyers of scrap X-ray and other photographic film (any quantity)
Specialists in silver recovery from used X-ray fixer

CME

See Pages 113, 118, 160

NEW YORK FERTILITY RESEARCH FOUNDATION, INC.

For the Investigation of Problems of Human Infertility

The Institute provides a complete diagnostic and consultation service for infertile couples. Investigations are conducted by well-known specialists in conjunction with consultants in the various fields of medicine related to infertility.

Patients are returned to the referring physician after appropriate studies have been made, together with a complete detailed report of the findings of the Institute and its consultants and recommendations for therapy. Literature on request.

123 East 89th Street, N.Y., N.Y. 10028

Phone: TR 6-9300

Officially Endorsed by *The Medical Society of New Jersey*

a new group major medical program for Doctors

- LOW RATES
- BROAD COVERAGE
- OPEN ENROLLMENT – JUNE

For More Information Contact
Donald F. Smith and Associates

Research Park, 1101 State Road • Princeton, New Jersey 08540 • (609) 924-8700 or (201) 622-6046

Underwritten by New Jersey Blue Cross-Blue Shield.

REVIEW ARTICLE

Lung cancer continues to increase in annual incidence and numbers of cancer deaths each year. It is predicted that 89,000 Americans will die of lung cancer in 1977. Newer attempts at early diagnosis based upon cytologic studies may increase resectability rates. There have been some advances in chemotherapy of lung cancer, particularly of the oat cell variety. These will be summarized.

Recent Advances in Chemotherapy of Lung Cancer*

Bernard J. Koven, M.D., Englewood

Nine years ago I had the pleasure of addressing the Section on Chest Diseases at the Annual Meeting of the Medical Society of New Jersey.[1] Lung cancer was described as reaching epidemic proportions. It was estimated that 51,000 Americans died of this disease in 1967. It is now predicted[2] that 89,000 Americans will die of lung cancer in 1977 and almost 21,000 of these cancer deaths will be in women. A significant increase in smoking by teenage girls recently was found in a survey conducted by the American Cancer Society and it is expected that in the years ahead the sex ratio of male-to-female lung cancer deaths will narrow substantially.

Since cure rate for clinically symptomatic lung cancer remains dismally low, nation-wide efforts at early detection are under way at a number of institutions. In general, high-risk patients (those over 45 who have smoked one or more packs of cigarettes per day for over 20 or 30 years) are having periodic chest films and sputum cytology performed. Where cytology is positive, evaluation by flexible fiberoptic bronchoscopy is performed.[3] Twenty thousand persons were screened in a study of sputum cytology for detection of lung cancer in smokers without symptoms of the disease; follow up by fiberoptic bronchoscopy for tumor localization found 154 cancers.[4] It is hoped that treatment of these cancers, detected early, will show significant increases in survival rates.

Types of Lung Cancer

The types of lung cancer which almost invariably are related to carcinogen exposure (cigarette smoke for the most part) are squamous cell or epidermoid carcinoma and small cell or oat cell carcinoma. These are referred to as Type I by epidemiologists. The Type II carcinomas (adenocarcinoma, alveolar cell, large cell, and so on) occur without known relationship to carcinogens.

For purposes of reporting results of various treatment regimens investigators are now putting the small cell (oat cell) carcinoma patients in one group and all others together as "non-oat cell bronchogenic carcinoma." Oat cell carcinoma patients, representing about 18 percent of all lung cancer patients[5], are virtually incurable by standard surgical techniques at the time of diagnosis[6]. Staging procedures frequently reveal spread to bone, bone marrow, brain, and/or other distant sites. However, responses to single-agent chemotherapy as well as to drug combinations usually far exceed responses in non-oat cell carcinomas and for this reason oat cell patients generally are reported separately.

Chemotherapy of Oat Cell Carcinomas of the Lung

Without chemotherapy, median survival from diagnosis ranges between six and twenty weeks.[6-8] With single alkylating agents[8], median survivals of nine months and longer have been reported. More recently, additional drugs including vincristine, Adriamycin®, procarbazine, methotrexate, bleomycin, and the nitrosourea drugs all have been shown to have

*Read before the Section on Chest Diseases, 211th Annual Meeting, the Medical Society of New Jersey, Atlantic City, May 16, 1977.

activity in this disease. At the present time many centers and cooperative groups are using combinations of two, three, or more of these agents, frequently in conjunction with radiation therapy. In some series the latter is delivered to the involved areas within the chest plus the adjacent supraclavicular areas. Since lung cancer frequently spreads to the brain, and most of the chemotherapeutic agents do not cross the "blood-brain barrier," some groups are giving "prophylatic" radiation therapy to the brain[10-12] in all or some of their patients. Others reserve cranial irradiation for clinical evidence of metastasis to the brain. Controlled studies are currently under way to determine whether "prophylactic" radiotherapy to the head offers significant advantages.

Several groups of investigators recently have reported their results in oat cell carcinoma. Einhorn *et al.*[13] used bleomycin, Adriamycin®, cyclophosphamide, and vincristine in combination without radiation therapy in 29 patients. In the four patients with limited disease, all went into complete remission; two remained in complete remission for over one year. Of the 25 patients with generalized disease, 18 (72 percent) had more than 50 percent regression and two (8 percent) had complete remissions. Median survival was 39 weeks. Wittes *et al.*[14] employed a combination of cyclophosphamide, Adriamycin®, vincristine, and methotrexate plus radiotherapy to locoregional involvement. Of 29 patients 82 percent showed complete or partial regression of tumor. The median survival from start of therapy was 12 months for those with limited disease and eight months for those presenting with disseminated disease.

Hornback *et al.*[11] reported 29 cases of oat cell carcinoma treated with radiation therapy to the primary lung tumor and whole brain plus a combination of Adriamycin®, cyclophosphamide, vincristine, and BCG immunotherapy. All 29 patients responded to therapy: 17 (59 percent) complete and 12 (41 percent) partial regressions. Ninety percent of patients survived a minimum of six months and 63 percent survived over one year.

Kent *et al.*[10] working at the Radiation Oncology Branch of the National Cancer Institute radiated the primary tumor and whole brain and gave combination chemotherapy consisting of cyclophosphamide, Adriamycin®, and vincristine. All treatment was stopped after three months. There were 29 of 31 complete remissions (94 percent) but there were six deaths in this group of 31 patients associated with complications of treatment. Median survival time was more than 20 months for limited disease and 11 months with extrathoracic disease. On this program almost all patients required blood transfusions and six patients required platelets transfusion because of severe thrombocytopenia.

Chemotherapy of Non-Oat Cell Carcinoma of the Lung

Of the various cell types of lung cancer, about 42 percent are epidermoid (squamous cell), 22 percent large cell, 10 percent adenocarcinoma, 4 percent bronchoalveolar, and 4 percent other.[5] There are some recent reports dealing solely with epidermoid carcinoma. Updating the continuing Veterans Administration lung cancer study group, Hyde, Lowe, and Wolf[15] reported comparisons in four different drug regimens: (1) cyclophosphamide alone, (2) cyclophosphamide plus CCNU, (3) cyclophosphamide plus Adriamycin®, and (4) CCNU plus Adriamycin®. The authors concluded that Adriamycin® plus cylophosphamide was the most effective combination for well-differentiated squamous cell lung cancer. Any of the two-drug combinations proved superior to cyclophosphamide alone for poorly differentiated squamous cell lung cancer.

A five-drug combination with the acronym BACON[16] (bleomycin, Adriamycin®, CCNU, Oncovin® and nitrogen mustard) was used in 50 patients with squamous cell lung cancer. Tumor regression of more than 50 percent occurred in 17 patients (45 percent with extensive disease and in four patients (33 percent) with limited disease. The authors found that their responding and stable patients with extensive disease, as well as those with limited disease, had longer median survival times on this com-

bination chemotherapy compared to historical controls.

Another combination called CAMP[17] (cyclophosphamide, Adriamycin®, methotrexate, and procarbazine) was used in a series of 23 patients with metastatic non-oat cell bronchogenic carcinoma. Of these, 14 patients had squamous cell carcinomas, six adenocarcinomas, four large-cell undifferentiated carcinomas, and two bronchoalveolar carcinomas. Treatment was started after radiation therapy, which was directed to the lung in 19 of the patients and to the brain in three patients who already had brain metastases. Objective responses were seen in 11 of 23 patients (48 percent) with a projected median survival time of 12.5 months for the responding patients and patients with stable disease.

Among non-oat cell carcinoma types, the adenocarcinoma has been highly resistant to chemotherapy. A combination called CAMFAR, consisting of the drugs cyclophosphamide, Adriamycin®, methotrexate followed by folinic acid rescue, was employed by Robert[18] in 21 cases of histologically proved, measurable adenocarcinoma of the lung. To date, 15 cases have been evaluated with three complete responses, two partial responses of greater than 50 percent and eight lesser responses or stable disease. Toxicity was mild to moderate, chiefly gastrointestinal or renal, in addition to the usual hematologic effects.

There is much interest in the possible role of immunotherapy as an adjunct to surgery and/or chemotherapy in the treatment of lung cancer. McKneally *et al.*[19] reported the use of intrapleural administration of BCG to produce a controlled equivalent of postoperative empyema in 38 patients following pulmonary resection for lung cancer. A course of isoniazid (INH) subsequently is administered. Preliminary results of his randomized prospective clinical trial indicated that patients with stage I lung cancer were significantly benefited by the treatment compared to controls. Those patients with more advanced disease did not seem to improve.

Recently there also has been some interest in the use of heparinization in conjunction with chemotherapy. Elias *et al.*[20] reported a series of 28 patients with inoperable or metastatic carcinoma of the lung who failed to respond to conventional chemotherapy and/or radiotherapy. All patients received multiple drug chemotherapy consisting of cyclophosphamide, fluorouracil, 6-thioguanine, methotrexate, and vincristine. In 14 patients receiving this combination there were no tumor regressions seen. The other 14 patients were anticoagulated with heparin and then received the same multiple drug chemotherapy program. Over 50 percent tumor regression was noted clinically and radiologically in seven of the 14 patients. Two of the seven remain alive and well 18 months later.

Discussion

While lung cancer continues to increase in overall incidence in both male and female populations in the United States, some encouraging progress has been made. Hopefully the slope of increasing incidence may taper off as cigarettes containing lower tar and nicotine content are utilized by the smoking public. It probably will require several decades to see such a change, however. Attempts at cytologic diagnosis prior to the onset of clinically symptomatic disease may increase the proportion of operable and resectable lung cancer patients. For the present, combined modalities of surgery, radiation therapy, chemotherapy, and possibly immunotherapy offer the best hope for increased cure rates and/or longer survival rates. Toxicity from combined modalities can be severe and even life-threatening. Both radiation and cancer chemotherapy agents may have immunosuppressive effects[21]. Among the chemotherapeutic agents, cyclophosphamide, methotrexate and 6-mercaptopurine are highly potent immunosuppressive agents. Chemotherapy is generally less immunosuppressive if given in short intensive courses rather than continuously. Neutrapenia is probably the most important factor responsible for susceptibility to infection during cancer chemotherapy. Investigators must be prepared to employ potent antibiotics where indicated as well as provide blood and blood cell elements including platelets to support patients under intensive combination therapy modalities.

Bibliography

1. Koven BJ: Newer concepts in the therapy of pulmonary malignancies. *J Med Soc NJ* 65: 652-654, 1968.
2. Cancer Statistics, 1977: *Ca* 27: 26-41, 1977.
3. Marsh BR *et al:* New horizons in lung cancer diagnosis. *Cancer* 37: 437-439, 1976.
4. *Cancer Letter* 2:7, January 30, 1976.
5. Selawry OS and Hansen HH: Lung cancer. In: *Cancer Medicine* (Holland JF and Frei E III, eds.). Philadelphia, Lea and Febiger, 1973, pp. 1473-1518.
6. Medical Research Council: Comparative trial of surgery and radiotherapy for the primary treatment of oat cell carcinoma of the bronchus. *Lancet* 7471:979, 1966.
7. Eagen RT *et al:* Small cell carcinoma of the lung: Staging paraneoplastic syndromes, treatment, and survival. *Cancer* 33: 527, 1974.
8. Green RA *et al:* Alkylating agents in bronchogenic carcinoma. *Am J Med* 46:516, 1969.
9. Martini, N *et al:* Oat cell carcinoma of the lung. *Clin Bull* 5:144-148, 1975.
10. Kent CH *et al:* Oat cell carcinomas of the lung yield to combination therapy, *JAMA* 236:2153-2161, 1976.
11. Hornback, NB: Oat cell carcinoma of the lung: Early treatment results of combination radiation therapy and chemotherapy. *Cancer* 37:2658-2664, 1976.
12. Nixon DW *et al:* Combination chemotherapy in oat cell carcinoma of the lung. *Cancer* 36:867-872.
13. Einhorn LH *et al:* Improved chemotherapy for small-cell undifferentiated lung cancer. *JAMA* 235:1225-1229, 1976.
14. Wittes RE *et al:* Oat cell carcinoma of the lung—Combination treatment with radiotherapy and cyclophosphamide, adriamycin, vincristine, and methotrexate. *Cancer.* In press.
15. Hyde L *et al:* Chemotherapy for squamous cell cancer of the lung. *Proc Amer Soc Clin Oncol* May 16-17, 1977.
16. Livingston RD *et al:* Combination chemotherapy with bleomycin, Adriamycin®, vincristine and mechlorethamine (BACON) in squamous cell lung cancer: Experience with 50 patients. *Cancer Chemother Rep* (Part 3) 6:361-367, 1975.
17. Bitran JD *et al:* Cyclophosphamide, Adriamycin®, methotrexate, and procarbazine (CAMP)—Effective four-drug combination chemotherapy for metastatic non-oat cell bronchogenic carcinoma. *Cancer Treatment Rep* 60: 1225-1229, 1976.
18. Robert F: Cyclophosphamide, Adriamycin®, methotrexate and folinic acid rescue (CAMFAR) treatment of metastatic adenocarcinoma of the lung. *Proc Amer Soc Clin Oncol,* May 16-17, 1977.
19. McKneally MF *et al:* Regional immunotherapy with intrapleural BCG for lung cancer. *J Thorac Cardiovas Surg* 72:333-350, 1976.
20. Elias EG *et al:* Heparin and chemotherapy in the management of inoperable lung carcinoma. *Cancer* 36:129-136, 1975.
21. Bodey GP *et al:* Effects of cytoxic and immunosuppressive agents on the immune system. *Postgrad Med* 58:67-74, 1975.

200 Engle Street, Englewood

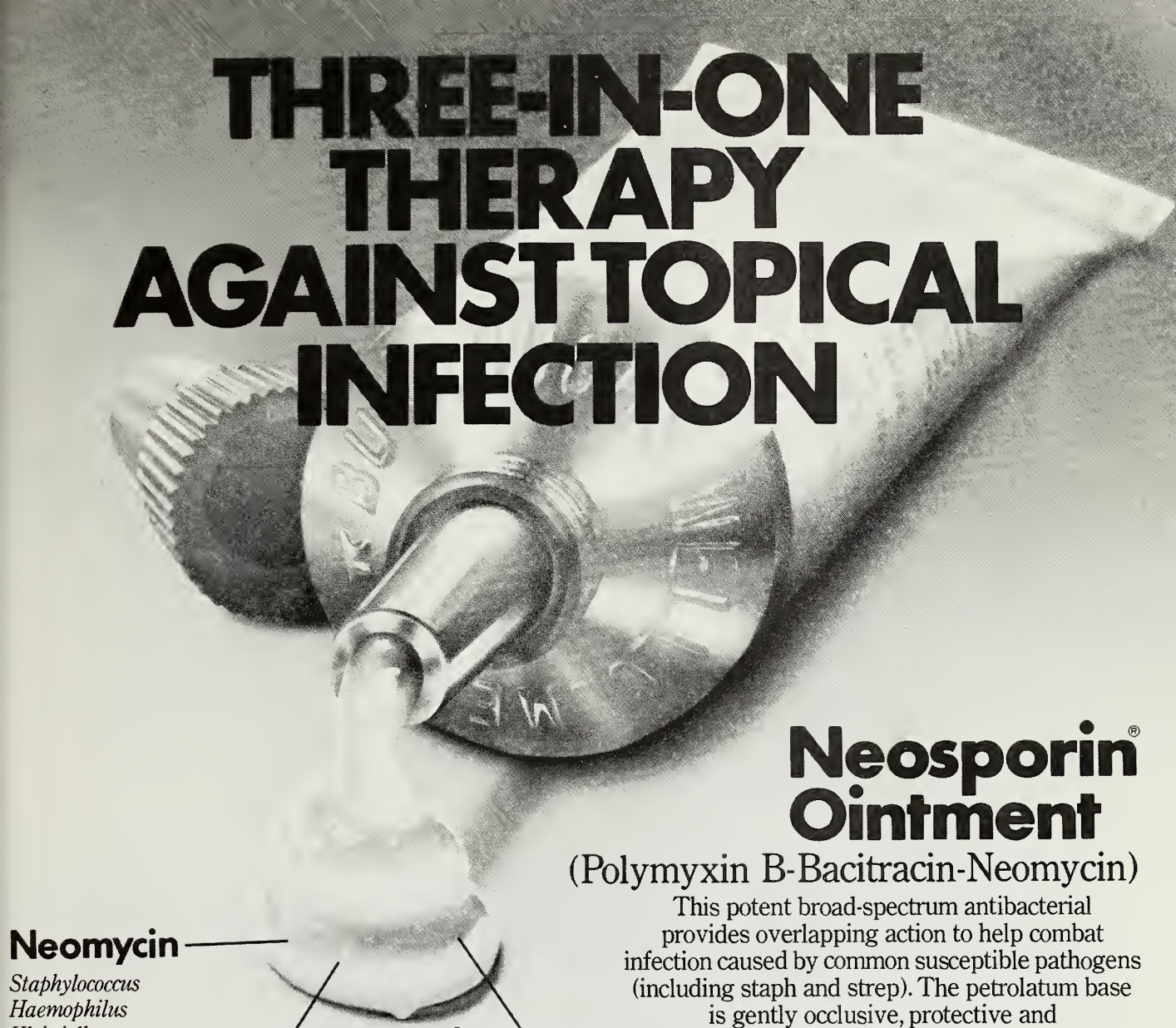
212th Annual Meeting
May 6-9

Headquarters Hotels

Holiday Inn — Howard Johnson's Regency

Atlantic City

THREE-IN-ONE THERAPY AGAINST TOPICAL INFECTION



Neosporin® Ointment

(Polymyxin B-Bacitracin-Neomycin)

This potent broad-spectrum antibacterial provides overlapping action to help combat infection caused by common susceptible pathogens (including staph and strep). The petrolatum base is gently occlusive, protective and enhances spreading.

Neomycin

Staphylococcus
Haemophilus
Klebsiella
Aerobacter
Escherichia
Proteus
Corynebacterium
Streptococcus
Pneumococcus

Bacitracin

Staphylococcus
Corynebacterium
Streptococcus
Pneumococcus

Polymyxin B

Pseudomonas
Haemophilus
Klebsiella
Aerobacter
Escherichia

In vitro overlapping antibacterial action of Neosporin® Ointment (polymyxin B-bacitracin-neomycin).

Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Neosporin® Ointment

(Polymyxin B-Bacitracin-Neomycin)

Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

THE FIRST ANNUAL EDWARD G. WATERS GYNECOLOGIC CONFERENCE

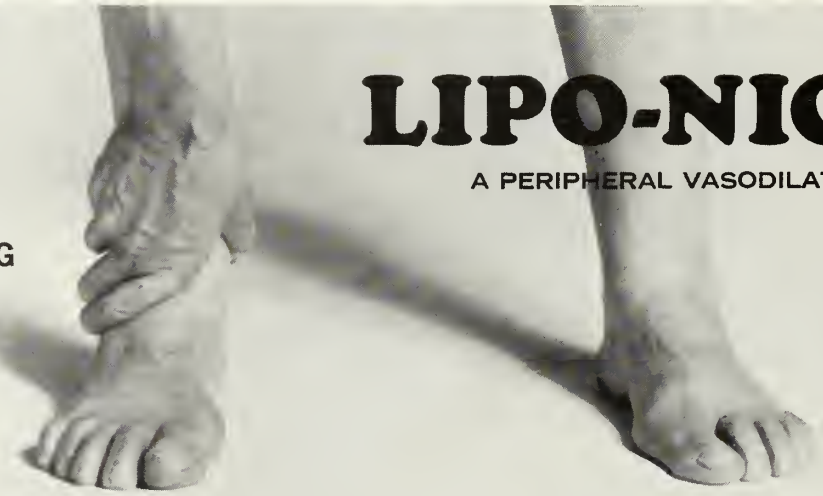
To be held at the Resorts International Hotel, Atlantic City, New Jersey March 17-19, 1978. Sponsored by the Department of Obstetrics and Gynecology of the New Jersey Medical School.

For further information please contact Herik Caterini, M.D., Department of Obstetrics and Gynecology, New Jersey Medical School, 65 Bergen Street, Newark, New Jersey 07107. (201) 643-8800 ext. 2706.

EDUCATIONAL CREDIT:

ACOG Cognates: 20 Cognates
AAFP Credits: 17 Credits
AMA Credits: 17 Credits
NJ Nurses Association: 17 Credits

COLD FEET
LEG CRAMPS
TINNITUS
DISCOMFORT ON STANDING



LIPO-NICIN

A PERIPHERAL VASODILATOR

IMMEDIATE or GRADUAL

nicotinic acid therapy

IMMEDIATE RELEASE

LIPO-NICIN/100 mg.
Each blue tablet contains:

Nicotinic Acid	100 mg.
Niacinamide	75 mg.
Ascorbic Acid	150 mg.
Thiamine HCL (B-1)	25 mg.
Riboflavin (B-2)	2 mg.
Pyridoxine HCL (B-6)	10 mg.

DOSE: 1 to 5 tablets daily.
AVAILABLE: Bottles of 100, 500, 1000.

LIPO-NICIN/250 mg.
Each yellow tablet contains:

Nicotinic Acid	250 mg.
Niacinamide	75 mg.
Ascorbic Acid	150 mg.
Thiamine HCL (B-1)	25 mg.
Riboflavin (B-2)	2 mg.
Pyridoxine HCL (B-6)	10 mg.

DOSE: 1 to 3 tablets daily.
AVAILABLE: Bottles of 100, 500, 1000.

GRADUAL RELEASE

LIPO-NICIN/300 mg.
Each time-release capsule contains:

Nicotinic Acid	300 mg.
Ascorbic Acid	150 mg.
Thiamine HCL (H-1)	25 mg.
Riboflavin (B-2)	2 mg.
Pyridoxine HCL (B-6)	10 mg.

In a special base of prolonged therapeutic effect.
DOSE: 1 to 3 tablets daily.
AVAILABLE: Bottles of 100, 500.

Indications: For use as a vasodilator in the symptoms of cold feet, leg cramps, dizziness, memory loss or tinnitus when associated with impaired peripheral circulation. Also provides concomitant administration of the listed vitamins. The warm tingling flush which may follow each dose of LIPO-NICIN 100 mg. or 250 mg. is one of the therapeutic effects that often produce psychological benefits to the patient. **Side Effects:** Transient flushing and feeling of warmth seldom require discontinuation of the drug. Transient headache, itching and tingling, skin rash, allergies and gastric disturbance may occur. **Contraindications:** Patients with known idiosyncrasy to nicotinic acid or other components of the drug. Use with caution in pregnant patients and patients with glaucoma, severe diabetes, impaired liver function, peptic ulcers, and arterial bleeding.

BROWN **THE BROWN PHARMACEUTICAL CO., INC.** 2500 West Sixth Street, Los Angeles, California 90057
Write for Literature and Samples

REFER TO PDR

CASE REPORTS

Three cases of nonspecific inflammatory bowel disease complicated by amebic and/or bacterial dysentery are presented. The similarity in clinical features between acute exacerbations of primary inflammatory bowel disease and dysentery caused by the above organisms may cause difficulty in differential diagnosis. Failure to diagnose these curable forms of dysenteric diseases in patients with primary inflammatory bowel disease and to initiate appropriate therapy in time may lead to dangerous complications.

Masquerading Colitis

Infectious Dysentery Superimposed on Chronic Inflammatory Bowel Disease

R. K. Chessler, M.D.,
W. S. Rosenthal, M.D., and
C. S. Pitchumoni, M.D., Fort Lee

The acute onset of non-specific inflammatory bowel disease may be difficult to distinguish from amebic or bacterial dysentery by the usual clinical, sigmoidoscopic, laboratory, or histological criteria.[1] This diagnostic problem becomes more difficult in patients with pre-existent, non-specific chronic inflammatory bowel disease. Recently we have seen three patients with chronic inflammatory bowel disease who experienced serious exacerbations which proved to be infectious in origin. A combined infection of Entamoeba histolytica and Salmonella newport was responsible in one patient; Shigella flexneri was implicated in two others. Attention should be called to this problem since a failure of recognition could be responsible for potentially disastrous therapeutic results.

Case 1 — A 28-year-old male executive had experienced mild intermittent bouts of bloody diarrhea for seven years. Two years prior to admission a complete clinical review at a U.S. Naval Hospital resulted in a diagnosis of ulcerative proctitis. Symptoms were well controlled by salicylazosulfapyridine.

Six months before admission, the patient had visited Acapulco, Mexico. Three months later he experienced an increase in bowel movements to 6 to 8 times per day with increasing amounts of blood. Just prior to admission increasing colicky lower abdominal pain developed and was accompanied by shaking and chills.

Physical examination on admission revealed a somewhat dehydrated but well-developed, well-nourished man. The pulse rate was 100 and temperature was 101°F. Other significant findings were marked tenderness in both lower quadrants of the abdomen with normal bowel sounds and no distention. The liver was palpable two cm below the right costal margin. Rectal examination demonstrated the presence of blood and mucus. Proctosigmoidoscopy revealed a markedly inflamed, hemorrhagic, granular and friable mucosa which bled easily with slight trauma.

Laboratory data: hemoglobin 13.4 gm/dl, hematocrit 41%, WBC 9,200 with 38% neutrophils, 25% band forms, 30% lymphocytes, 7% monocytes, reticulocytes 2.0%, platelets 324,000. Sedimentation rate was evaluated to 44 mm/hr. The BUN, uric acid, electrolytes and liver function tests were within normal limits. Microscopic examination of the stool revealed many Entamoeba histolytica cysts with erythrophagocytic trophozoites. A stool specimen was also submitted for routine culture.

Barium enema revealed ulcerations and irregularities of the rectum consistent with the diagnosis of ulcerative proctitis.

The amebiasis was treated with tetracycline (250 mg. q.i.d. for 10 days), diiodohydroxyquin (650 mg. t.i.d. for 21 days) and chloroquine (250 mg. b.i.d. for 21 days). Shortly after the onset of this therapy, E. histolytica could no longer be demonstrated and there was a dramatic decrease in bloody diarrhea; appetite increased and a feeling of well-being appeared. At this time, admission stool cultures were reported to be positive for Salmonella newport. No specific therapy was instituted for that.

The patient was discharged to convalesce at home. However, two weeks later, the patient noted the recurrence of malaise, low-grade fever, and increasing abdominal pain with watery diarrhea. Furthermore, his serum anti-0 titers to salmonella group C rose to 1/640. Chloramphenicol, in doses of three grams daily, was administered for fourteen days. After 48 hours of this treatment, all symptoms subsided and the patient remained clinically well. Stool culture one month later demonstrated Salmonella newport but six months later no pathogens could be demonstrated.

Comment

This patient had a combination of primary inflammatory bowel disease, amebiasis, and salmonellosis. The early finding of trophozoites of Entamoeba histolytica in the stool sample enabled us to initiate specific anti-amebic treatment. The isolation of salmonella in the stool was an added complicating factor in the management of this patient. Normally, Salmonella

newport is non-invasive, but rising serum antibody titers and the patient's serious systemic manifestation induced us to treat the patient with full doses of chloramphenicol. It is noteworthy that while a clinical "cure" was attained, the patient continued to shed salmonella in the stool.

Case 2 – A 21-year-old male was admitted to the hospital because of diarrhea. During the eight months prior to admission, the patient had lost 40 pounds. For six months, he had six to seven watery bowel movements per day. The feces were brown but occasionally contained small amounts of blood. The bowel movement was associated with crampy peri-umbilical pain. Two days prior to admission, the patient developed fever with temperatures as high as 104° F. He had neither traveled outside of the United States nor had contacts with individuals with a diarrheal syndrome.

Physical examination on admission revealed a well-developed male with evidence of recent weight loss and with acute abdominal distress. The temperature was 102° F. The abdomen was markedly distended with voluntary guarding and severe tenderness in both lower quadrants. There was no hepatosplenomegaly or palpable abdominal mass. Bowel sounds were hypoactive. Rectal examination demonstrated bloody liquid stool.

Laboratory data: Hemoglobin 15 gm/dl, hematocrit 43.6%, WBC 11,500, differential – 38% neutrophils, 19% band forms, 37% lymphocytes, 6% monocytes. ESR 40 mm/hr., reticulocytes 1.3%, platelets 210,000. Chest x-rays and electrocardiogram were within normal limits. Blood glucose, urea nitrogen and electrolytes, serum protein electrophoresis and liver function tests were not remarkable. Cholesterol was 95 mg/dl. The stool examination demonstrated numerous polys without bacteria on gram staining.

Proctosigmoidoscopy to a level of 25 cm revealed a friable granular mucosa with multiple pinpoint hemorrhages and a few 3 to 5 mm shallow ulcers. Rectal biopsy revealed a dense lymphocytic infiltration, some focal hemorrhages and degenerative changes in the superficial epithelium consistent with the diagnosis of ulcerative colitis. The diagnosis of acute ulcerative colitis was made.

Emergency treatment was instituted consisting of ACTH, steroids, and salicylazosulfapyradine. A barium enema shortly after admission demonstrated a narrowed, rigid and irregular 10 cm segment of the sigmoid colon. The cecum was spastic and never well delineated. The remainder of the colon appeared radiographically uninvolved. Small bowel x-ray examination demonstrated a small ileocecal fistula, narrowed terminal ileum with an irregular contour and thickening and separation of loops of small bowel. The radiological diagnosis was granulomatous ileocolitis.

At this point, five successive stool cultures demonstrated Shigella flexneri. Treatment consisting of two grams of ampicillin daily for two weeks was accompanied by rapid clinical improvement. Eight days following admission, colonoscopy revealed multiple discrete shallow ulcers extending from the rectum to a level of 40 cm. with normal intervening mucosa. Above the 40 cm. level to 105 cm., the mucosa appeared normal with infrequent ulcers noted. The narrowed area 30 cm. from the anus noted on barium enema revealed a granular mucosa with lack of distensibility. The patient has remained asymptomatic following his discharge from the hospital but the x-ray findings of granulomatous bowel disease persist.

Comment

The overlapping features of shigellosis and granulomatous ileocolitis made a definite diagnosis difficult in this case. The prolonged course prior to admission and the radiologic demonstration of segmental involvement of the sigmoid colon, cecal spasticity, narrowing and thickening of the terminal ileum, and the ileocecal fistula provided convincing evidence of granulomatous ileocolitis. The early clinical impression was that the problem in this patient was a fulminant exacerbation of granulomatous ileocolitis. The positive stool cultures and the prompt response to antimicrobial therapy helped established the shigellosis as the predominant lesion superimposed on pre-existing Crohn's Disease.

Case 3 – A 26-year-old male was admitted to the hospital with chief complaints of fever of 102° F. and bloody diarrhea. This began ten days prior to admission, immediately following news of high emotional content. At that time, diarrhea occurred 3 to 4 times per day; initially it was watery, but shortly became bloody and increased to 20 to 30 times per day and was associated with fever and severe colicky lower abdominal pain. Ulcerative proctitis had been diagnosed at several well-known centers during an eight-year period prior to admission. He had been hospitalized twice in the preceding year: once for bloody diarrhea requiring parenteral therapy and again for drainage of an ischiorectal abscess. Past history included neonatal omphalitis resulting in portal hypertension which required a splenorenal shunt at age five. He was also under observation for chronic glomerulonephritis and mild azotemia which began five years prior to admission.

Physical examination revealed a toxic, thin, dehydrated male. His vital signs were as follows: blood pressure 120/70, pulse 100, respiration 24 and temperature 103° F. The abdomen was soft and not distended. Hyperactive bowel sounds were heard and marked tenderness was present in the left lower quadrant.

Laboratory data: hemoglobin 11 gm/dl, hematocrit 34%, MCV 95, WBC 14,400, 73% neutrophils, 10% stabs, 17% lymphocytes. The total protein 6.3 gm, (albumin 2.5 gm, globulin 3.8 gm), calcium 8.3 mg/dl, phosphorus 2.5 mg/dl, cholesterol 35 mg/dl. Liver function tests and electrolytes were within normal limits. Urine contained protein (2+), the specific gravity was 1.016; neither glucose nor acetone was present. On microscopic examination, 4 to 6 red and white cells per HPF were present. X-ray of the abdomen on admission revealed mild distention of loops of small

bowel suggesting mild non-specific ileus. Sigmoidoscopy showed severe ulcerative colitis.

Initial therapy consisted of intravenous ACTH and corticosteroids, but the patient made a poor response. Fever and abdominal pain continued with at least ten bloody bowel movements per day. Because of the severity of the illness, total parenteral nutrition was instituted. Serial abdominal x-ray did not reveal evidence of toxic dilatation. Microscopic examination of the stool was repeatedly negative for ova and parasites. Five days following admission, stool cultures demonstrated Shigella flexneri sensitive to ampicillin. Within two days after the institution of ampicillin therapy (2 gm/day for 9 days) an excellent and complete therapeutic and clinical response was made.

Comment

An established diagnosis of ulcerative proctitis in this patient erroneously led to the conclusion that the patient was in a state of acute exacerbation and extension of ulcerative proctitis following severe emotional trauma. The inadequate response to ACTH and steroids and severe abdominal tenderness suggested fulminant colitis and, at one point, surgical therapy was entertained. The isolation of shigella in the stool although delayed enabled us to initiate specific therapy. The patient responded rapidly and thus averted complications which could have resulted from prolonged steroid therapy or surgical measures.

Discussion

Reports of infectious agents which may be of etiologic significance in ulcerative colitis have been recurrent during the past 50 years.[2-5] Each has stressed a different organism but general confirmation has not been forthcoming. More recently, an increase in coliform bacteria was demonstrated in severe exacerbations of both ulcerative colitis and regional enteritis.[6] This was felt to be a non-specific change, perhaps related to the exudate present in the colonic contents associated with the inflammatory state. Toxigenic strains of E. coli capable of producing acute diarrheal syndromes do not show any clear-cut relationship to the activity of ulcerative colitis. Indeed, toxigenic strains often were found *following* rather than accompanying the exacerbation.[7] Recently, a series of patients were reported to develop ulcerative colitis following a bout of salmonella gastroenteritis.[8]

In the presently reported group of patients, this hypothetical sequence of events was reversed. Long-standing ulcerative proctitis was well-documented in two of the three patients. The third patient presented with a diarrheal syndrome of several months duration and a clinical course and x-ray findings strongly suggested established Crohn's Disease.

There appears to be a startling absence of similar reports in the recent literature. The reasons for this are not readily apparent. Travel to and from areas which are endemic for gastrointestinal pathogens has become commonplace in recent years. Patient #1 indeed had traveled to Mexico shortly prior to the onset of his difficulties. Patients #2 and #3 had no significant travel history so their shigellosis must have been transmitted unwittingly within the confines of the metropolitan area.

It should be noted that both Shigella flexneri and the enteric infections with many species of salmonella can be self-limited infections. Indeed, in the latter infection, a well-designed double-blind study has demonstrated that antibiotic therapy in previously normal subjects is of no value and may predispose to the development of a chronic carrier state.[9] Patient #1, in fact, did shed Salmonella newport for several weeks after complete clinical recovery. No similar evidence exists militating against antibiotic therapy for shigellosis. Quite the contrary, although shigella infections may be self-limited, there is a highly significant morbidity and mortality without therapy. Recent emergence of ampicillin-resistant strains of shigella has led to expressions of concern and reports of increasingly severe infections.[10]

The lack of reports similar to ours is not easily explained. Are these infections overlooked and treated inadvertently by inclusion of antibiotics in the treatment regimen of ulcerative colitis in severe exacerbations? Do the massive doses of steroids commonly administered to these patients mask these infections? Are patients with severe ulcerative inflammatory bowel disease more resistant to these infections because of local immune factors? The latter explanation may account for the fact that two

of our patients had well-localized rectal disease, with the remainder of the colon free of disease. On the other side of the coin, these two patients might have been more relaxed about their dietary habits because of their rather modest symptoms. Patients who have a past or present history of severe ulcerative colitis tend to be more attentive to dietary intake. The latter tendency is reinforced by frequent physician contacts.

Our patients illustrate an essential point in the clinical management of chronic inflammatory bowel disease. Each exacerbation of this illness must be accompanied by a thorough screening for bacteriologic or parasitic super-infection. Failure to have done so in the presently reported case material could have had potentially disastrous results.

References

1. Pittman FE, El-Hashim WK, Pittman JC: Studies of human amebiasis I. Clinical and laboratory findings in eight cases of acute amebic colitis. *Gastroenterology* 65:581-587, 1973.

2. Hurst AF: Ulcerative colitis. *Guys Hosp. Rep.* 71:26-30, 1921.

3. Bargen JA: Experimental studies on the etiology of chronic ulcerative colitis. *JAMA* 83:332-336,1924.

4. Felsen J, Wolarsky W: Bacillary dysentery and ulcerative colitis: Their occurrence among military and associated personnel, World War II. *Gastroenterology* 9:557-561, 1947.

5. Klotz AP, Palmer WL, Kirsner JB: Aureomycin proctitis and colitis: Report of five cases. *Gastroenterology* 25:44-47, 1953.

6. Gorbach SL, Nanas L, Plaut AG, *et al:* Studies of intestinal microflora v. fecal microbial ecology in ulcerative colitis and regional enteritis: Relationship to severity of disease and chemotherapy. *Gastroenterology,* 54:575-587, 1968.

7. Cooke EM, Ewins SP, Hywel-Jones J, *et al:* Properties of strains of Escherichia carried in different phases of ulcerative colitis. *Gut* 15:143-146, 1974.

8. Dronfield MW, Fletcher J, Langman MJ: Coincident salmonella infections and ulcerative colitis: Problems of recognition and management. *Brit Med J* 1:99-100, 1974.

9. Aserkoff B, Bennett JV: Effect of antibiotic therapy in acute salmonellosis on the fecal excretion of salmonellae. *N Engl J Med* 281:636-640, 1969.

10. Ross S, Controni G, Khan W: Resistance of shigellae to ampicillin and other antibiotics. *JAMA* 221:45-47, 1972.

1555 Center Avenue, Fort Lee

PATRONIZE OUR ADVERTISERS

They Merit Your Support

This is the first case report of acute parkinsonism associated with lithium toxicity. Self-administered liquid protein diet was responsible for the toxic rise of serum lithium with sudden extrapyramidal system decompensation in the form of parkinsonism. Discontinuation of the diet resulted in dramatic symptom reversal. Possible pathogenetic factors are discussed. Careful monitoring of medicated patients on long-term diet therapy is mandatory.

Acute Lithium-Induced Parkinsonism Precipitated by Liquid Protein Diet

Elmar G. Lutz, M.D., Wayne*

Acute parkinsonism may herald the onset of lithium intoxication. The neurotoxic side effect of lithium in the following case was a direct result of a self-administered protein-sparing modified fast program[1,2] This diet was initiated by the patient without necessary proper medical supervision, resulting in absorptive toxic rise in lithium.

Case Report

A 55-year-old female with manic depressive illness (depressed type) since adolescence was maintained successfully on lithium carbonate 300 mg three times daily and amitriptyline 25 mg three times daily for the past five years. There had been no neurotoxic side effects except for occasional fine rapid tremor of both hands with a frequency of about 10 cps. Her lithium maintenance level varied between 0.74 mEq/L and 1.1 mEq/L. The patient began a "Last Chance Diet," which had been prescribed for her extremely obese and hypertensive husband by his internist. She consulted me 28 days later on an emergency basis with acute parkinsonism. This diet consisted of one and a half quarts of water or club soda, six ounces of liquid protein, eight ounces of orange juice, one multivitamin, 0.98 mg of folic acid, and two 100 mg potassium tablets per day. The patient lost 30 pounds within 27 days. Pronounced tremors of the hands and legs and other parkinsonian symptoms began on the 25th day of her diet and progressively worsened. When examined, the patient presented acute symptoms of parkinsonism including coarse, five to six cps tremors of both upper and lower extremities, marked cogwheel rigidity in both arms, increased glabellar reflex, and markedly decreased mimetic expression. There was no impairment of consciousness nor any other signs of known imminent or present lithium toxicity.

The patient was advised to have serum lithium and electrolyte studies done immediately, but only arranged for these tests the following day at which time all electrolytes were normal, except for an increased calcium (11.6 mg/dl) and lithium (1.83 mg/dl) level. This information did not become available to me until four days later, at which time the acute parkinsonian symptoms had subsided, except for mild bilateral cogwheeling. It is likely that the lithium level at its peak was actually higher. Treatment measures consisted of decreasing lithium carbonate from 300 mg three times daily to twice daily, the addition of benztropine mesylate (Cogentin®), two mg twice daily, and discontinuation of the liquid protein diet. It should be emphasized that the patient had not shown any sign of confusion or conceptual disorganization and had experienced her parkinsonian symptoms most acutely on awakening. There was no recurrence of parkinsonian symptoms after the lithium carbonate maintenance dose of 300 mg thrice daily was reinstituted.

Discussion

While the development of parkinsonism during lithium therapy is generally gradual, the acute development of parkinsonism, considered by the patient as a "stroke-like" syndrome, is highly unusual and has not been reported previously. The dramatic reversal of the syndrome implicates the extreme reducing diet as the triggering agent.

Extrapyramidal side effects during lithium maintenance therapy had been reported by Shopsin and Gershon[3], who described the occurrence of cogwheel rigidity in more than half of a group of patients receiving lithium therapy for over a year. This high frequency of parkinsonian side effect was refuted by other authors[4] who found that only a few patients demonstrated rigidity, including cogwheel rigidity, and that this was at a low level of severity.

Neurotoxicity with lithium[5], including the description of a Huntington's chorea-like syndrome, had been reported previously. This paper described apparent toxic effects at blood levels between 1.16 and 1.97 mEq/L, levels not usually associated with toxic phenomena in manic individuals. A decreased threshold of drug sensitivity, however, was mentioned for patients with underlying neuropathy which

predisposes them to central nervous system toxicity at moderate to low levels of lithium but no neurologic abnormalities were found in the group of patients with affective disorders at low levels of serum lithium.

Peripheral neuropathy during dieting was recently reported in seven patients[6]. The mechanism by which the weight loss caused the nerve palsy is unknown. Possibly their diets were deficient in certain vitamins or other nutrients necessary in maintaining normal nerve function.

Hyponatremia with concomitant "compensatory" toxic rise in serum lithium is one possible pathogenetic explanation for the sudden extrapyramidal system decompensation in the form of acute parkinsonism and its relatively sudden disappearance in this case. This is possible even though an abnormally low serum sodium was not demonstrated in the electrolyte study the day following discontinuation of the liquid protein diet and the decrease in lithium carbonate dosage. Hyponatremia could arise from nutritional deficiency of sodium as well as by a disturbance of the release of the antidiuretic hormone. The latter is known to occur as a complication of central and peripheral neuropathy and during lithium treatment. Another explanation could be dehydration with neurotoxic lithium rise owing to insufficient fluid intake in this diet, possibly further enhanced by the polyuria of nephrogenic diabetes insipidus, known to occur during lithium therapy.

This case may demonstrate the danger to a patient on prescribed medications, such as lithium, tampering with his diet in such an abnormal form. It also illustrates the need for careful monitoring of medicated patients on long-term diet therapy.

References

1. Bistrian BR, Winterer J, Blackburn G, *et al:* Effect of a protein sparing diet and brief fast on nitrogen metabolism in mildly obese subjects. *J Lab and Clin Med* 89:5, 1977.

2. Linn R, Stuart SL: *Dr. Linn's Last Chance Diet.* Secaucus (NJ), Lyle Stuart, 1976.

3. Shopsin B, Gershon S: Cogwheel rigidity related to lithium maintenance. *Am J Psychiat* 132:536-538, 1975.

4. Branchey MH, Charles J, Simpson GM: Extrapyramidal side effects in lithium maintenance therapy. *Am J Psychiat* 133:444-445, 1976.

5. Shopsin B, Johnson G, Gershon S: Neurotoxicity with lithium: Differential drug responsiveness. *Int Pharmacopsychiat* 5:170-182, 1970.

6. Sherman DG, Easton JD: Dieting and peripheral nerve palsy. *JAMA* 238:230-231, 1977.

896 Valley Road, Wayne

Support the Society for
Relief of Widows and Orphans
(c/o MSNJ, P.O. Box 904, Trenton 08605)

Two patients with evidence of myositis, elevation of serum muscle enzymes, acute renal failure, and myoglobinuria are described. One presented with an influenza-like syndrome, while the other had status epilepticus. In both cases, the clinical picture resolved completely with supportive therapy. Proposed hypotheses for the mechanisms of myoglobinuric renal failure as well as pathogenesis of muscle necrosis associated with viral respiratory tract infection and prolonged seizures are reviewed.

Myoglobinuria and Acute Renal Failure

William Liao, M.D., Emanuel Abraham, M.D., Gordon Boak, M.D., and Muhammed Huq, M.D., Neptune

A considerable literature on myoglobinuria and its associated complication, acute tubular necrosis, has accumulated since it was described in 1910 by Meyer-Betz. Myoglobinuria is classified as *genetic* or *hereditary* (e.g., McArdle-phosphorylase deficiency) and *sporadic*. The latter is subdivided into exertion, crush injuries, ischemic, metabolic, progressive muscle disease, and idiopathic, according to the etiology.

Prolonged convulsions (status epilepticus) have been known to be followed by myoglobinuria.[1] Of the 38 cases studied at the University of Pennsylvania Hospital from 1967-1971, three patients belonged to this category.[2] Recently, the association of Influenza A infection and myoglobinuria was documented.[3,4]

During the month of December 1976, we had the opportunity to see a patient with prolonged seizures and another with influenza-like syndrome; both had evidence of myositis with elevation of serum enzymes, acute renal failure and myoglobinuria.

Case 1—A 21-year-old man, whose previous health was good, presented on December 12, 1976 with a two-week history of low-grade fever, malaise, sore throat, and diffuse muscle pains in the hips, thighs, and neck. He also had mild difficulty with breathing and swallowing.

Past medical history revealed no prior episode of weakness, myalgia, or renal disease. He had infectious mononucleosis as a child, and drug addiction (heroin) from 1969 to 1973. Family history was negative for muscle and renal disease.

On admission, he was conscious, alert, and in no acute distress. Blood pressure was 130/80, pulse 80/min., respiratory rate 18/min., and temperature 98 F. Physical examination revealed congestion and whitish exudate on the anterior pillars of the pharynx and some tender cervical lymph nodes. There was no muscle tenderness and the remainder of the examination was unremarkable.

Laboratory studies on admission showed a hemoglobin of 16.4 g./dl, hematocrit 48.7 percent and leucocyte count, 32,700/mm^3 with shift to the left. The white cell count dropped to 9,600/mm^3 on the fourth hospital day. Urinalysis showed a 3+ positive orthotoluidine test for occult blood with 3-5 RBC/HPF. Blood urea nitrogen was 32 mg/dl which rose to 59 mg/dl on the second day, with a creatinine level of 4.8 mg/dl. Creatinine clearance was 22 ml/min., SGOT was 1360 u; SGPT 154 u, LDH 4340 iu, and CPK 3033 u. (99 percent of muscular origin as per fractionation). Inorganic phosphates were more than 10 mg/dl, uric acid 24.3 mg/dl and aldolase 54 u. Urine for myoglobin was positive (differential solubility in ammonium sulfate[5]). Serum hemoglobin was negative. Normal or negative tests were prothrombin time, partial thromboplastin time, antistreptolysin-0 titer, VDRL, serum complement, haptoglobin, lupus erythematosus preparation, monospot® test, and heterophile antibody test. Throat culture showed alpha streptococcus. Serum viral studies were negative.

Throughout the course, urine output was always adequate. All serum enzymes, BUN, and creatinine returned to normal by December 21, 1976. The patient's clinical picture resolved completely during ten days of hospitalization with symptomatic therapy including a 40 gram protein diet, sodium bicarbonate, aluminum hydroxide gel, and allopurinol.

Case 2—40-year-old man presented in the emergency room on December 20, 1976 in status epilepticus. He had a history of seizure disorder of five-months' duration. Apparently, he had not taken his anticonvulsant drugs regularly. Past history included a craniotomy in the left frontal area in July, 1976 and generalized psoriasis.

Physical examination in the intensive care unit revealed a well-developed, well-nourished, restless, incoherent man with an endotracheal tube in place. Blood pressure was 140/80, pulse 150/min., respiratory rate 14/min., temperature 101.2 F. Skin was warm and dry with no signs of needle marks. Head was normocephalic with soft depression in the left frontal area. Areas of patchy scaly eruptions were noted on the extremities, chest, face, and scalp. The rest of the examination was unremarkable.

Laboratory examination showed a hemoglobin of 15.6 gm/dl, hematocrit of 49.7 percent and leucocyte count of 25,900/mm^3, with 40 segmenters, 8 bands, 48 lymphocytes and 4 monocytes. Initial blood sugar was 330 mg/dl, BUN 18 mg/dl, creatinine 5.6 mg/dl, SGOT 48 u., LDH 7600

iu., CPK 11,129 u. (fractionated as 99 percent muscular origin), uric acid 27.3 mg/dl, inorganic phosphates 6.8 mg/dl and aldolase 1083 iu. Urinalysis showed 3+ occult blood with 4-5 RBC/HPF. Urine for myoglobin was positive twice (per differential solubility in ammonium sulfate[5]). Initial serum electrolytes showed a sodium of 136, potassium 4.5, chloride of 99 and CO_2 of 3. Serum acetone was negative. Arterial blood gases showed a pH of 6.8, pCo_2 27 and pO_2 of 94. Lactic acid level was 20 mg/dl (normal 4-13 mg/dl). Salicylate and alcohol levels were negative. A chest x-ray was normal. Electrocardiogram showed sinus tachycardia with a rate of 150/min.

The patient was given diazepam intravenously and restarted on diphenylhydantoin 100 mg every eight hours and phenobarbital 30 mg three times a day. He also received a total of three ampules of sodium bicarbonate. It was felt that the profound metabolic acidosis was related to the marked muscular activity during the seizures with relative ischemia and tissue hypoxemia. The next day, he became alert and afebrile. He was extubated, but started to develop oliguria. Blood urea nitrogen rose to 99 mg/dl and creatinine to 14.4 mg/dl on the fifth hospital day. He was placed on a 40 gram protein diet, restricted fluids, and allopurinol. Diuresis began on the fifth hospital day, renal function gradually improved, and all serum enzymes returned to normal on the tenth day. Urinalysis was normal with no myoglobin on the day of discharge.

Deltoid muscle biopsy revealed focal areas of degeneration and regeneration consistent with rhabdomyolysis.

Discussion

In less than a month, we observed two patients with acute renal failure, in whom muscle necrosis with myoglobinuria was the sole identifiable explanation. In neither case was overt trauma or surgery a factor. We suspect that myoglobinuria renal failure from causes other than trauma probably is more frequent than generally is appreciated, and probably is underdiagnosed. Thus, it is important to be aware of the common clinical settings in which nontraumatic muscle necrosis may occur, and to look for myoglobinuria early in the course of such illnesses.

At present, specific identification of myoglobin requires spectrophotometric, immunologic or electrophoretic technics, and standard solutions that are not available widely.[6] But, the combination of common laboratory tests can lead one to a presumptive diagnosis of the presence of myoglobinuria: orthotoluidine positive urine without significant red blood cells, pigmented granular casts in the sediment, and a markedly elevated serum creatinephosphokinase. It should be noted that orthotoluidine is positive in both hemoglobinuria and myoglobinuria, but in the former, the serum is pink because of recent hemolysis, serum haptoglobin is low, and the serum enzymes are normal. In contrast, in myoglobinuria relatively little discoloration due to the pigment is noted in the serum. Haptoglobin content is normal because myoglobin essentially is not bound by haptoglobin and is excreted in the urine at serum concentration less than 15 mg/dl.

No single mechanism is entirely satisfactory to explain the pathogenesis of acute renal failure of myoglobinuria. Proposed hypotheses include plugging of tubules by myoglobin-containing casts, passive back diffusion of glomerular filtrate through damaged tubular epithelial cells, or a decrease in glomerular filtration rate.[7] Some believe it is the release into the circulation of large amounts of myoglobin, which is toxic to the tubular epithelium that causes acute tubular necrosis.[8] Dehydration, hypovolemia, and hyperuricemia are factors that are thought to contribute to the renal failure.

The pathogenesis of muscle necrosis associated with viral upper respiratory tract infection, which we believe is the case in our first patient, is speculative. Rhabdomyolysis may be caused by direct invasion of the muscle fibers by the virus, or through release of some unknown toxin.[3]

The association of acute disintegration of muscles and myoglobinuria with intense and prolonged physical exertion has become a widely recognized clinical entity.[9] Some of the possible factors considered in the past as specific mechanisms of rhabdomyolysis include unidentified noxious metabolites, acidosis, lactic acid, abnormal myoglobin, and autoimmunity. Potassium deficiency also has been implicated in the pathophysiology of exertional rhabdomyolysis, although we did not see the evidence of this in our second patient who presented with status epilepticus.

The prognosis for recovery from acute renal failure associated with myoglobinuria is good in most series, although it is poorer in those who

developed acute renal failure with rhabdomyolysis after operation. In both our patients, the clinical picture resolved completely and all serum enzyme values returned to normal within two weeks, with only supportive therapy and without the use of dialysis.

Viral upper respiratory tract infection and seizure disorders are common entities in all hospitals. It is our hope that physicians will become familiar with the association of viral upper respiratory tract infection and status epilepticus with rhabdomyolysis and myoglobinuria, so that this complication can be diagnosed and possibly avoided or improved by early bed rest and appropriate symptomatic therapy. Muscular pain, weakness, or laboratory evidence of myoglobinuria or serum muscle enzyme elevation appearing during the course of an influenza-like illness or status epilepticus are the features of this syndrome which should alert physicians to the possibility of acute renal failure as a further complication.

References

1. Diamond I and Aquino TI: Myoglobinuria following unilateral epilepticus and ipsilateral rhabdomyolysis. *N Engl J Med* 272: 834-837, 1965.

2. Rowland L and Penn A: Myoglobinuria. *Med Clin NA* 56:1233-1256, 1972.

3. Minow R, Garbach S, Johnson L: Myoglobinuria associated with influenza A infection. *Ann Intern Med* 80: 359-61, 1964.

4. Morgensen J: Myoglobinuria and renal failure associated with influenza. *Ann Intern Med* 80:362-363, 1974.

5. Henry RD: *Clinical Chemistry: Principles and Techniques.* New York, Harper and Row, 1964, p. 794-795.

6. Grossman R, Hamilton R, *et al:* Nontraumatic rhabdomyolysis and acute renal failure. *N Engl J Med* 291: 807-811, 1974.

7. Hollenberg NK, Epstein N, *et al:* Acute oliguric renal failure in man: Evidence for preferential renal cortical ischemia. *Medicine* 47:455-474, 1968.

8. Brenner BM and Rector FC: *The Kidney.* Philadelphia. Saunders, 1976, pp. 808, 1380-1381.

9. Olerud JE, *et al:* Incidence of acute rhabdomyolysis. *Ann Intern Med* 136:692-697, 1976.

10. Knochel JP: Exertional rhabdomyolysis. *N Engl J Med* 287:927-928, 1972.

71 Davis Avenue, Neptune

212th Annual Meeting

May 6-9

Headquarters Hotels

Holiday Inn — Howard Johnson's Regency

Atlantic City

See lodging reservation form — pg. 194 this issue

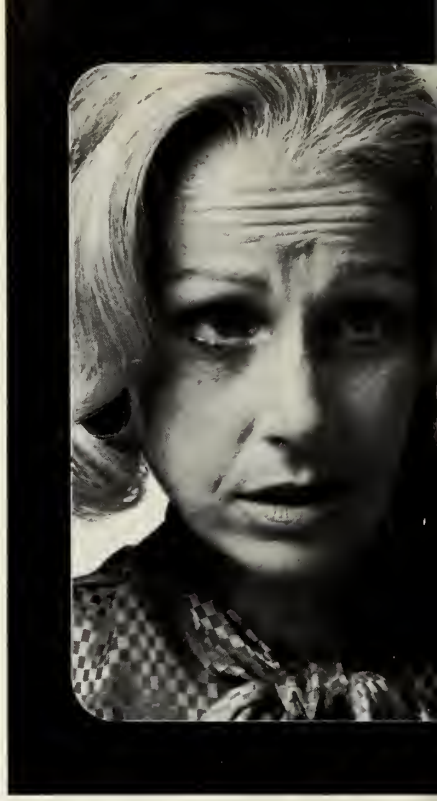
The AMA film library provides a service to you...

The AMA Film Library contains over 200 titles on such subjects as anatomy, embryology, obstetrics, gynecology, pediatrics, radiology, orthopedic surgery, and dermatology. The films are all 16 mm and are available on loan for a small service charge to physicians, medical societies, medical schools, hospitals, and other professional medical groups. A limited number of films on general health education topics are also available to physicians who wish to supplement their programs for lay groups. Free film library catalogs are available from the:

Audio-Visual Self-Learning
Department
535 N. Dearborn St.
Chicago, Illinois 60610

For additional information write to James L. Breeling, Director, at the above address or telephone: (312) 751-6566.

544-N



Cardilate® (erythrityl tetranitrate)

INDICATIONS For the prophylaxis and long-term treatment of patients with frequent or recurrent anginal pain and reduced exercise tolerance associated with angina pectoris, rather than for the treatment of the acute attack of angina pectoris since its onset is somewhat slower than that of nitroglycerin.

PRECAUTIONS As with other effective nitrites, some fall in blood pressure may occur with large doses.

Caution should be observed in administering the drug to patients with a history of recent cerebral hemorrhage, because of the vasodilation which occurs in the area. Although therapy permits more normal activity, the patient should not be allowed to misinterpret freedom from anginal attacks as a signal to drop all restrictions.

SIDE EFFECTS No serious side effects have been reported. In sublingual therapy, a tingling sensation (like that of nitroglycerin) may some times be noted at the point of tablet contact with the mucous membrane. If objectionable, this may be mitigated by placing the tablet in the buccal pouch. As with nitroglycerin or other effective nitrites, temporary vascular headache may occur during the first few days of therapy. This can be controlled by temporary dosage reduction in order to allow adjustment of the cerebral hemodynamics to the initial marked cerebral vasodilation. These headaches usually disappear within one week of continuous therapy but may be minimized by the administration of analgesics.

Mild gastrointestinal disturbances occur occasionally with larger doses and may be controlled by reducing the dose temporarily.

HOW SUPPLIED 10 mg chewable scored tablets, bottle of 100. Also 5, 10 and 15 mg oral/sublingual scored tablets in bottles of 100. 10 mg oral/sublingual scored tablets also supplied in bottles of 1,000.

Also available Cardilate®-P brand Erythrityl Tetranitrate with Phenobarbital* Tablets (Scored).

(*Warning - may be habit-forming.)

Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709



"**Our sex life is nil...**" A problem of the first magnitude to many post infarct patients and their mates...patients are often reluctant to broach the subject; physicians may frequently overlook its implications. This new 16mm film combines candid patient interviews with discussions by Drs. Herman Hellerstein, Thomas Hackett, Albert Kattus, Richard Stein, Carroll Witten and Lenore Zohman. Film and related monograph comprise 2 AAFP credit hours. To arrange viewing, write Burroughs Wellcome Co., Educational Services Department, Research Triangle Park, N.C. 27709 or contact your B.W. Co.® representative.

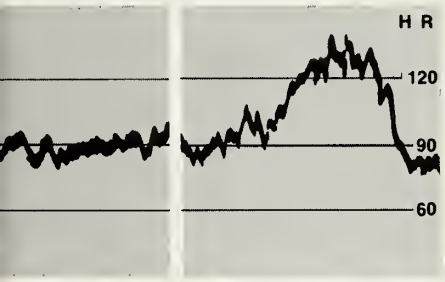
Sex and the heart patient:

A film every doctor should see.

he energy cost of sex to the eart is relatively modest.

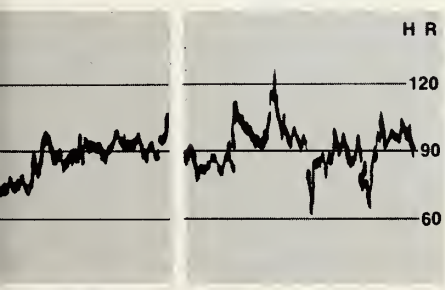
)ver 80% of post-coronary patients an ultimately resume sexual activity ithout serious risk. Hellerstein and reedman demonstrate that mean naximal heart rate during orgasm ith spouse (as opposed to extra-narital sex) in 14 post-infarct pa-ents is lower than that during usual ccupational activity.

epresentations below of actual KG readings of an attorney, post MI, illustrate the point:



. Working in office (about 90 beats/min)

B. Confrontation in judge's chamber (about 125 beats/min)



. Pre-orgasm sex activity (about 90 beats/min)

D. Peaks at orgasm (120 beats/min)



Fear of pain greatest deterrent to post MI sex

In the multitude of MI patients with angina, pain is due to diminished coronary reserve and increased myocardial oxygen demand, precipitated by sex, other excitement and improper exercise. Anginal pain, however, can be relieved, and its recurrence mitigated.

Cardilate® (erythrityl tetranitrate) increases exercise tolerance.

Cardilate relieves anginal pain and prevents its recurrence, thereby allowing increased activity.

Commencing to work in as little as 2 to 5 minutes, Cardilate protects against recurrence of angina for at least 2 hours.

Available in both sublingual and chewable forms, Cardilate is a versatile, convenient agent to help make the angina patient's life more livable.

Cardilate®
(erythrityl tetranitrate)

"Revelation of a second death, and new animal studies, indicate Laetrile can cause fatal poisoning...Georgia researchers will test laser beams for arthritis treatment...In Alabama, a vaccine for protection against dental caries is being studied...New York and Swedish clinicians unveil two noninvasive screening methods for detection of breast cancer..."

Important things are happening that you should know about right away. You'll find them on your desk every two weeks in Medical World News, the newsmagazine of medicine.

Read this one first.

medical world news

A McGraw-Hill publication



Special Article

One hundred and three general hospitals in New Jersey were surveyed for data relating to burn care. Forty-six hospitals (44.7 percent) reported 1182 hospitalized burns during 1975. There were 25 deaths (2.1 percent) and 29 transfers (2.5 percent). Of patients hospitalized with burns, 4.4 percent were discharged by 14 days. It was estimated that between 500 and 550 patients were hospitalized with severe burns during 1975.

Burn Care in New Jersey*

Harold M. Bruck, M.D. and William A. Dwyer, Jr., M.D., Paterson

Burn care in New Jersey traditionally has been delivered at the community hospital level with the largest burns often, but not uniformly, transferred to burn centers. Feller and Crane[1] estimated that 75,000 patients with burns were hospitalized in the United States per year (an incidence of 340 per million population). Feller noted that only 7,700 of these patients were treated in hospitals with burn programs and indicated an urgent need for additional burn treatment facilities, although his report did not characterize burns by degree of severity. More recently, regional surveys in the San Francisco Bay Area, the Greater Delaware Valley Area, Florida, Maine, and Central New York State have identified an average of severe burns approximating 70 per million population[2].

In order to develop a rational approach to burn care in New Jersey, the Committee on Trauma, New Jersey Chapter of the American College of Surgeons, with the endorsement of the American Burn Association, the New Jersey State Department of Health, and the New Jersey Hospital Association surveyed the 103 acute general hospitals in the state. A questionnaire was designed in an effort to gain insight into the total number of burns and the number of patients hospitalized with severe burns; overall mortality from burns; mortality as related to burn size; the number of patients transferred and the pattern of referral to burn centers; and the quality of care at each level. Burns were tabulated by age and percent body surface area burn, by length of stay and by severity. Severity of burn was based on the presence of any one of the following: (1) burn over 25 percent body surface area (BSA) in an adult, over 10 percent BSA in a child; (2) any patient under two years of age or over 65 years; (3) associated major trauma or medical illness; (4) length of stay longer than 21 days; (5) transfer to a larger hospital or burn center; or (6) death. The questionnaire was distributed by mail about August 1, 1976, returned by November 1, 1976, and included data for the year 1975.

Results

Forty-six hospitals (44.7 percent) completed and returned the questionnaire. These hospitals and the number of burns reported are listed in Table 1. Among 1182 burn patients hospitalized, there were 25 deaths, an overall mortality of 2.1 percent, and 29 transfers (2.5 percent).

Distribution by age and body surface area burn is shown in Table 2. Approximately one-third of the cases (375 or 32.6 percent) occurred in patients between ages of 16 and 65 years. Approximately two-thirds of the cases (750 or 65 percent) were less than 10 percent of BSA (Table 3). An additional 317 burns (27.5 percent) were reported between 10 and 25 percent BSA. Eighty-seven burns (7.5 percent) were greater than 25 percent BSA.

Death was reported in 25 patients, not including transfers (Table 4). Of these 25 deaths in patients treated at the community hospital level, the average burn size was 32.3 percent. Thirteen patients were over 70 years of age, three under

*Report to the Committee on Trauma, New Jersey Chapter, American College of Surgeons (12/4/76). Dr. Bruck is chairman, Subcommittee on Burn Care, ACS and Dr. Dwyer is chairman, State Trauma Committee, ACS.

Table 1
Burns Reported in New Jersey by Hospitol
1975

Hospital and Location	Number
Hackensack, Hackensack	86
St. Francis, Jersey City	63
St. Francis, Trenton	60
West Jersey, Camden	53
Mountainside, Montclair	45
Atlantic City	37
St. Barnabas, Livingston	37
St. Joseph's, Paterson	37
Jersey Shore, Neptune	35
West Hudson, Kearny	35
Helene Fuld, Trenton	33
John F. Kennedy, Edison	33
Chilton, Wayne and Pompton Plains	32
Rahway, Rahway	31
Riverview, Redbank	31
Burlington County, Mount Holly	28
Paul Kimball, Lakewood	26
Newcomb, Vineland	25
Hospital Center at Orange	24
Monmouth, Long Branch	24
Our Lady of Lourdes, Camden	24
Bayonne, Bayonne	23
Beth Israel, Passaic	23
Newton Memorial, Newton	23
St. Michael's, Newark	23
William Kessler, Hammonton	22
Bridgeton, Bridgeton	21
Underwood, Woodbury	21
Warren, Phillipsburg	21
Mercer, Trenton	20
Passaic General, Passaic	19
Muhlenberg, Plainfield	18
Valley, Ridgewood	18
Freehold Area, Freehold	16
Pascack Valley, Westwood	16
Bay Shore Community, Holmdel	15
Barnert, Paterson	14
St. Clare's, Denville	11
West Essex General, Livingston	10
Garden State Community, Marlton	9
North Hudson, Weehawken	9
Hackettstown, Hackettstown	8
Zurbrugg, Riverside	8
Columbus, Newark	7
Community, Morristown	4
Medical Center, Princeton	4
Total	1182

two years. Two patients had burns greater than 60 percent BSA. There were nine deaths in patients under the age of 65 years with burns of 50 percent BSA or less. Six of these patients had some associated medical illness.

Twenty-nine transfers occurred (Table 4) from day one to day 27, most transferred during the first day or two following injury. Eighteen of the transfers were to the Greater Delaware Valley Burn Foundation (St. Agnes or Crozer-Chester); three transfers were to the Shriners' Burn Institute in Boston; and the remainder to hospitals scattered throughout New Jersey and New York City. Transfer patients were characterized by an average burn size of 39.8 percent. Six patients were over 60 years of age, three under three years of age, and five had burns greater than 50 percent BSA. No mortality data were available on these patients.

Data on length of stay were available in 1108 cases and are recorded in Table 5. Eight hundred twenty-five patients (74.4 percent) were discharged in 14 days or less. An additional 88 patients stayed 15 to 20 days. One hundred ninety-five patients (17.6 percent) had a length of stay exceeding 21 days.

Reporting hospitals characterized 334 cases as severe. However, there were multiple records of large burns with a short length of stay, e.g., a 40 percent BSA burn discharged home in 12 days, or a 35 percent BSA burn discharged in two days. Burn size was not precisely recorded in a large percentage of hospital charts. Using the recorded burn size of 25 percent BSA or greater (10 percent BSA or greater in children), and including patients under the age of two

Table 2
Distribution of Burns by Age and Percent Body Surface Areo

AGE (yrs.)	0 – 9	10 – 25	26 – 59	60 – 100	Unknown	Totals
0 – 2	18	33	3	–	–	54
2 – 9	39	44	10	1	3	97
10 – 15	18	15	4	–	–	37
16 – 29	37	62	19	1	2	121
30 – 44	31	52	16	2	4	105
45 – 65	52	75	20	–	2	149
Over 65	25	33	10	1	1	70
Unknown (Includes 528 "minor" burns)	530	3	–	–	16	549
TOTALS	750	317	82	5	28	1182

Table 3
Distribution by Body Surface Area Burn

Percent BSA	Number	(% of Total)
less than 10	750	(65.0)
10 – 25	317	(27.5)
26 – 59	82	(7.1)
60 – 100	5	(0.4)
	1154	(100.0)

Table 4
Burns, New Jersey, 1975

Deaths (*n* = 25)	
over 70 years	13
under 2 years	3
over 60% BSA	2
average burn size	32.3%
Transfers (*n* = 29)	
over 60 years	6
under 3 years	3
over 50-60% BSA	5
average burn size	39.8%

Table 5
Length of Stay for 1108 Burn Admissions New Jersey, 1975

Days	*n*	Cumulative %
less than 10	707	(63.8)
11 – 14	118	(74.4)
15 – 20	88	(82.4)
21 – 28	63	(88.0)
29 – 60	102	(97.2)
more than 60	30	(100.0)

years and over 65 years, 237 severe burns were counted. Because of discrepancies between burn size and length of stay and questionable accuracy of recorded burn size, length of stay seemed a more reliable and accurate measure of burn severity. To 195 patients with a hospital stay greater than 21 days were added 25 deaths and 29 transfers for a total of 249.

Discussion

It is apparent from this survey that most hospitalized burns are minor or small, and that approximately 75 percent of patients are discharged from the hospital within 14 days. Based on length of stay data and including deaths and transfers (249 severe burns reported from 44.7 percent of the state's hospitals), one can estimate a maximum of 500 to 550 moderate or severe burns, hospitalized in New Jersey during 1975. This represents between 68 to 75 hospitalized severe burns per million population and is consistent with the average of 70 per million population from the several regional surveys previously cited.

Discrepancies between burn size and length of stay and the limited or absent recording of precise burn size in many cases reflect errors or deficiencies in charting or in estimating burn size or both. Other surveys have noted similar deficiencies as well as sparse or absent data on depth of burn.

Patients who died in the community hospital had an average burn size of 32.3 percent. Although no mortality data were available on transfers, the average burn size of those patients was 39.8 percent. This observation confirms the impression that the smaller and moderately large burns were treated in the community hospital, while the largest burns were transferred. One wonders if perhaps some improvement in mortality could be effected by placing more potentially salvageable "smaller" large burns in the special care unit that is better equipped than the average community hospital with isolation facilities, complete support services, and the experience to deal with the many and complex complications that invariably occur in the burn of significant size. Conversely, the transfer of the very large hopeless injury (e.g., the 60 to 80 percent burn in a 65-year-old patient) to a special care unit, often rationalized as a "service" probably is *not* justified in terms of cost of care and perhaps raises false hopes for the patient's family. A reassessment of burn-center referrals may well be in order.

This survey, by its nature, provided no data to define the quality of burn care. Furthermore, there are no data that assess the quality of care in the community hospital as compared to the burn center. This important and difficult problem might well be approached through a more detailed prospective study.

Summary and Conclusions

One hundred and three general hospitals in New Jersey were surveyed for data relating to burn care. Forty-six hospitals (44.7 percent) reported 1182 hospitalized burns during 1975. There were 25 deaths (2.1 percent) and 29 transfers (2.5 percent). Of patients hospitalized with burns, 74.4 percent were discharged by 14 days. It was estimated that between 500 and 550 patients were hospitalized with severe burns during 1975, approximating an incidence of 68 to 75 per million population. Difficulties in defining the severity of burns and the quality of care, based on deficiencies and discrepancies in reporting were discussed. Patients treated in the community hospital who died had an average burn size of 32.3 percent BSA. Although no mortality data were available on transfers, the average burn size of those patients was 39.8 percent. This observation confirms the impression that the smaller and moderately large burns were treated in the community hospital, while the largest burns were transferred.

Quality of care, which could not be assessed in this study, should be approached through a more detailed prospective study.

Burn care in New Jersey well may be improved by: (1) a continuing educational program with a focus on the quality of care for most small burns treated at the community hospital level; and (2) a reassessment of burn center referrals with more frequent transfer of the "smaller" large burn, under 25 percent BSA (or still smaller burns with major associated trauma or medical condition) in an effort to improve survival.

References

1. Feller I. Crane KH: Classification of burn-care facilities in the United States. *JAMA* 215:463-466; 1971

2. Reports to the Committee on Organization and Delivery of Burn-Care. American Burn Association, 1976-1977

Pediatric Briefs*

"Normal" Children, "Abnormal" Results. Chase, G.A. *et al.: Johns Hopk Med J* 140:1 (1977)

The concept of sensitivity and specificity is considered for typical screening procedures. "With even a small rate of false positives a sufficiently large number of tests will guarantee at least one 'abnormal' result for virtually everyone tested." In screening for a rare disorder in a normal population false positives predominate. In a patient where prior odds favor presence of a disease (some symptom or sign suggesting the illness as a possibility) a positive test has much less likelihood of being falsely positive. Any highly sensitive screening test used on a "normal" population will result in many false positives which may ". . . . interfere with the capacity of the screening unit to detect those truly in need of care."

Comment: Screening is what we as clinicians do all the time. Screening for common disorders (hypertension, anemia) is distinct from that of rare disease. Since false positives predominate in screening an unselected population for rare disease, it is essential to know whom to screen (select a population at high risk) and to be careful not to overdiagnose or overtreat on the basis of unconfirmed screening tests. R.H.R.

*Excerpts from CMDNJ Rutgers Medical School *Pediatric Newsletter* (Vol. 1, No. 7, May 1977), Richard H. Rapkin, M.D., Editor. Dr. Rapkin has given *The Journal* permission to reprint this material from time to time.

CLINICAL NOTE

Charcoal Hemoperfusion for Insecticide Overdose*

Earl F. Nielsen, M.D., Morristown

Oxychlordane is a lipophilic chloridinated hydrocarbon insecticide which is similar to and largely has replaced DDT as an insecticide both commercially and for home use. It is toxic to the liver, kidneys, lungs, heart, and the central nervous system. Like other organochlorine compounds it is highly fat soluble and has a long half-life of three months.[1] The *Poisonindex* reveals that hemodialysis and peritoneal dialysis are ineffectual in removal of this poison.[2] Hemoperfusion apparently has not been employed previously.

The case in point involved a thirty-five year old male who presented on April 19, 1977, with an acute ingestion of four ounces of undiluted Chlordane® (90 grams) two hours prior to admission, as a suicide attempt. The known lethal dose is six or more grams. Vomiting was induced in the emergency room and the patient was given oral magnesium sulphate. He then underwent a grand mal seizure. Hemoperfusion was begun four hours later, employing a Hemocol® 300 gram acrylic encapsulated activated charcoal column.** Hemoperfusion was accomplished at a flow rate of 200 ml./minute for four hours. The oxychlordane levels performed at the University of South Carolina were:

Time	*Level*
Pre-Hemoperfusion	1,800 ppb
Immediate Post-Hemoperfusion	667 ppb
Four Days Post-Hemoperfusion	481 ppb

In the general population only trace amounts of oxychlordane can be detected. In individuals occupationally exposed, the mean level is 0.55 ppb.[3]

The patient subsequently had no further neurological or other clinical symptoms. Initially he had 2+ proteinuria which cleared. He did not develop azotemia or increase in liver enzymes. His platelet count fell to 110,000 immediately post-hemoperfusion due to charcoal absorption.

Summary

Successful charcoal hemoperfusion has been described for an overdose of oxychlordane in a patient who ingested 90 grams of this agent and developed neurological involvement. Pre- and post-hemoperfusion control values are presented. This report appears to represent the initial successful employment of hemoperfusion in the treatment of an ingestion of a commonly used insecticide, Chlordane.® The patient's clinical state did not warrant further hemoperfusion, but in general repeat hemoperfusion should be considered for any substance with a high lipid affinity because of its subsequent reaccumulation in plasma water.

References

1. Aldrich FD and Holmes JH: Acute Chlordane® intoxication in a child. *Arch Environ Health* 19:129, 1969.

2. *Poisonindex*. National Center for Poison Information, Rocky Mountain Poison Center, University of Colorado Medical Center, Denver, Colorado.

3. Personal Communication: Dr. S. H. Sandifer, Department of Epidemiology, University of South Carolina.

*This case report is from the Hemodialysis Unit, Morristown Memorial Hospital, Morristown.
**Warner-Chilcott

JOIN US.

AMA
AMERICAN MEDICAL ASSOCIATION

We can do much more together.

TREAT THE SYMPTOMS IN THE GERIATRIC PATIENT

APATHY • IRRITABILITY
FORGETFULNESS • CONFUSION



Cerebro-Nicin® CAPSULES

A GENTLE CEREBRAL STIMULANT & VASODILATOR FOR GERIATRIC PATIENTS

Each CEREBRO-NICIN® capsule contains:

Pentylenetetrazole	100 mg.
Nicotinic Acid	100 mg.
Ascorbic Acid	100 mg.
Thiamine HCl	25 mg.
l-Glutamic Acid	50 mg.
Niacinamide	5 mg.
Riboflavin	2 mg.
Pyridoxine HCl	3 mg.

AVAILABLE: Bottles 100, 500, 1000

SIDE EFFECTS: Most persons experience a flushing and tingling sensation after taking a higher potency nicotinic acid. As a secondary reaction some will complain of nausea, sweating and abdominal cramps. The reaction is usually transient.

INDICATIONS: As a cerebral stimulant and vasodilator.

RECOMMENDED GERIATRIC DOSAGE: One capsule three times daily adjusted to the individual patient.

WARNING: Overdosage may cause muscle tremor and convulsions.

CONTRAINDICATIONS: Epilepsy or low convulsive threshold.

CAUTION: Federal law prohibits dispensing without prescription. Keep out of reach of children.

Write for literature and samples . . .

BROWN THE BROWN PHARMACEUTICAL CO.
2500 W. 6th St., Los Angeles, Calif. 90057

NEW JERSEY DOCTORS' NOTEBOOK

Trustees' Minutes

December 18, 1977

A regular meeting of the Board of Trustees was held on Sunday, December 18, 1977, at the Holiday Inn in North Brunswick. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

Hunterdon Medical Center . . . Agreed that the principles involved in the controversy concerning the full-time specialty staff at Hunterdon Medical Center—that a specialist must be employed by the hospital in order to maintain privileges in the hospital and to practice in the community—are not appropriate, and requested the Executive Committee to meet with interested parties to investigate the matter and report their findings at the next meeting of the Board of Trustees.

Commission on Cost of Medical Care . . . Appointed the following Ad Hoc Committee to Review the National Commission Report on the Cost of Medical Care:

Louis F. Albright, M.D., Chairman
Meyer L. Abrams, M.D.
Alfred A. Alessi, M.D.
George L. Benz, M.D.
Arthur Bernstein, M.D.
Frank Campo, M.D.
Joseph P. Donnelly, M.D.
William J. Dougherty, M.D.
Karl T. Franzoni, M.D.
Charles S. Krueger, M.D.
Richard E. Lang, M.D.
John S. Madara, M.D.
Henry J. Mineur, M.D.
Daniel J. O'Regan, M.D.
James S. Todd, M.D.
Mr. Jack W. Owen

The Committee is to prepare recommendations to the New Jersey delegation to the AMA for presentation at the annual meeting in St. Louis in June 1978. (It was suggested that the recommendations be completed for presentation to the delegates by April.)

State Board of Medical Examiners' Regulations . . . Directed that the State Board of Medical Examiners' proposed rules concerning release of patient records and concerning advertising and solicitation be referred to the Judicial Council for review and report to the January meeting of the Board.

Consultant to Advise Physicians on HSA Activities . . . Authorized the staff to discuss, with the New Jersey Foundation for Health Care Evaluation, a suggestion from the Atlantic County Medical Society that MSNJ hire a consultant to advise physicians on HSA activities, and report to the Board within two months.

Certificate of Need in Private Practice . . . Directed the Executive Committee to discuss with the Commissioner of Health a matter concerning the installation of a linear accelerator by the Sharlin Radiological Associates which may, in the view of the New Jersey Department of Health, constitute the operation of a health facility.

IRS Determination of Deductibility of Surplus Payment . . . Noted that it is the Executive Director's opinion that payments to the Medical Inter-Insurance Exchange of monies kept in a running account for the duration of membership in the Exchange are deductible as a business expense; however, there are no identical cases on record and the opinion is purely advisory.

Note: MSNJ has authorized the forwarding of information to IRS on this query for determination. Should IRS not allow the deduction their decision will be appealed.

MSNJ Headquarters Site . . . Approved the following recommendations concerning the purchase of a new headquarters facility for MSNJ in Lawrenceville Township:

1. That the Board of Trustees approve the purchase of a building located in Lawrenceville at a cost of $1,025,000.

2. That the Board of Trustees authorize an interest-free loan of $200,000 from the Professional Liability Fund to the MSNJ General Fund to cover the down payment on the purchase of the new headquarters.

3. That the Board of Trustees refer the report of the Director of Finance and Administrative Services to the Committee on Finance and Budget for their consideration and recommendations in preparing the 1978-79 budget.

Note: The Director of Finance and Administrative Services presented a detailed report of an estimate of revenue and expenditures that MSNJ could expect to experience with the purchase of the new headquarters.

4. That the Board of Trustees authorize the sale of the existing headquarters building.

CMDNJ . . . Received as informative a report from Dr. Bergen, President, CMDNJ, which included, among others, the following subjects:

1. Dr. Bergen's attendance at a meeting of the Section on Medical Schools of the AMA House of Delegates, during which Dr. Bergen presented a resolution in opposition to pressure to force hospital residency programs to affiliate with medical schools in order to retain accreditation.

2. Foreign medical graduates and P.L. 94-484, which alters the program for alien foreign medical graduates coming to the United States under temporary visas for training by requiring such graduates (1) to have passed parts I and II of the National Board of Medical Examiners examination, (2) to provide evidence of competence in oral and written English, and (3) to be able to adapt to the educational and cultural environment of the training institution. FMGs will be required to have a job *before* they can apply for an immigrant visa. Only medical schools and their affiliated teaching hospitals will be permitted to offer programs to FMGs. This law will not affect alien physicians who entered the United States before January 10, 1977.

3. Graduate education—public funds for support of such programs in community hospitals.

4. An issue that seems to be developing concerning the awarding of a medical degree to individuals who participate in partial programs (New York State Regents have issued such degrees without the involvement of a medical school).

Note: CMDNJ was able to thwart attempts of the legislature to pass a bill that would have awarded a doctoral degree to a student who was unable to complete his dental curriculum.

5. A report of the November meeting of the Board of Trustees of the College (on file in the Executive Offices).

MSNJ Student Association . . . Noted that the present membership of the MSNJ Student Association is 60, that Bylaws are being drafted for presentation to the Board of Trustees in January, and that plans are under way to establish a chapter at Rutgers Medical School.

. . . Suggested that students who desire to attend county medical society meetings communicate directly with the county medical society in question.

Committee on Publication . . . Approved the following recommendation from the Committee on Publication:

That the Annual Meeting Program which traditionally has been included in the April (or May) issue, JMSNJ, and the Official Transactions of the House of Delegates, which have been printed in the July (or August) issue, be published as supplements to *The Journal* and charged against the expenses of the Annual Meeting and the House of Delegates, respectively.

Physician Representation at State Health Agency Meetings . . . Approved the following recommendation, as amended by the Board (indicated by italics), from the Council on Medical Services:

That the Board of Trustees appoint a representative to attend future meetings of the State Health Planning and Coordinating Council *and/or its Review Committee* on behalf of the Medical Society of New Jersey.

Protein Supplements . . . Approved the following recommendation from the Council on Medical Services as revised by the Board (indicated by italics):

That the Medical Society of New Jersey notify all doctors in New Jersey, and the New Jersey Department of Health *that the Board of Trustees of MSNJ and the Subcommittee on Nutrition of the New York Academy of Medicine are of the opinion* that diets using protein hydrolosates, *with or without added amino acids, vitamins or mineral supplements,* as the sole source of calories *for the purpose of weight reduction should be regarded as an investigational procedure and not as a safe method of treatment. It is further requested that the State Department of Health issue an advisory on this topic.*

. . . Deferred action on a recommendation that Dr. Howard N. Jacobson be authorized to distribute the working copy of the report of the Subcommittee on Nutrition of the New York Academy of Medicine, "Protein Supplemented Starvation," to the AMA and the American Heart Association, pending receipt of the final report.

Medicaid Identifying Number . . . Approved the following recommendation and terms of agreement between the Committee on Medicaid and the Division of Medical Assistance and Health Services:

That the Board of Trustees approve the changes which have been proposed by the Division of Medical Assistance and Health Services and mutually agreed upon by that body and the Committee on Medicaid and that as long as the Division of Medical Assistance abides by the agreement no suit should be filed.

Terms of Agreement

1. That where professional associations with corporate status and practitioners in group practice submit claim forms for Medicaid reimbursement, it will not be necessary for the practitioner who rendered service to a patient to sign the claim form. The signature by any member of the corporation or the group will be acceptable for billing purposes. However, it will be necessary to include the IMP number on the claim form for the practitioner who performed the service in those instances where only one practitioner treated the patient. In instances where more than one practitioner has treated a patient, the IMP number of any one of the practitioners will be accepted on the claim form.

2. The Social Security number of the individual practitioner will not be used as the IMP number. In its place, a scrambled Social Security number of nine digits will be utilized as the IMP number. The scrambled number will not be identifiable as a Social Security number.

3. Upon the establishment of new scrambled IMP numbers for each individual practitioner, the Medicaid program will publish a directory booklet of the new IMP numbers which will be made available to Medicaid providers who will need the directory for reference purposes.

4. The Medicaid program will continue to process and reimburse Medicaid claims from individual practitioners who do not have an IMP number. Such claims will be processed and reimbursed without the IMP number until such time as all of the aforementioned components are in place and available to individual practitioners. When this has been accomplished, a new implementation date will be published and made known in advance to all individual practitioners. In addition, all individual practitioners will be informed of these changes via Medicaid newsletters as early as possible.

Blue Cross Claims . . . Instructed the Executive Committee to discuss with Blue Cross and the Executive Committee of the New Jersey Hospital Association the system of processing claims.

Note: The above action was in response to communications from members of MSNJ registering dissatisfaction with settlement for claims presented for adjudication.

Bylaws—Chapter VI . . . Authorized the Speaker and the Vice-Speaker of the House of Delegates, the President, the Chairman of the Board, and the Executive Director to review the transcript of the 1977 House of Delegates' proceedings and report their findings at the January meeting of the Board concerning Section (a), Chapter VI of the newly adopted Bylaws: "A member may be elected to this office (Delegate or Alternate Delegate) any number of times until he or she reaches age 65."

Note: There was a difference of opinion among Board members of the interpretation of the House action concerning the above-mentioned section of the Bylaws.

Report from the Foundation

Daniel J. O'Regan, M.D., Medical Director

American Medical News of December 5, 1977 contained a supplement, the Summary Report of the National Commission on the Cost of Medical Care. If you haven't read this timely analysis, I suggest that you do so. If your copy was discarded, it can be replaced by AMA, MSNJ, or NJFHCE. The recommendations of the Commission are worthy of study. Your comments will be appreciated by all three bodies mentioned above—AMA, MSNJ, and NJFHCE. The report "represents the Commission's recommendations on what providers, consumers, insurers, and regulators should do to make the delivery of health care more cost effective." Headings of the major sections are as follows: Strengthening Price Consciousness; Private Sector Cost Containment Initiatives; Guidelines for Regulation; Cost Containment Measures within Medical Practice; Supply and Distribution of Health Care Providers; Research Guidelines; and Consumer and Patient Education. These titles address most of the major topics which have been under discussion at all levels for the past five or six years. A few of the recommendations: No. 3: Fair Market Health Plan Competition (such as HMOs); No. 4: Alternative Financing Arrangements; No. 8: Assessment and Assurance of Quality; No. 12: Prospective Rate Settings for Hospitals; No. 15: Utilization in Appropriate Settings; No. 25: Criteria and Use of Practice Evaluation Techniques (such as PSROs). There are 48 recommendations in all.

Any document which addresses most of the major cost-related aspects of medical care will create a great deal of controversy and discussion. Discussions on these matters have been going on in many forums over the years. AMA deserves much credit for bringing the Commission into being, and the Commission likewise is to be commended for its report. Indeed, that such a task was performed at all under AMA auspices is in itself a sign of our times.

MSNJ has been addressing these topics since the report was issued, and NJFHCE has been a participant in the discussions. Your Foundation has been in the center of deliberations on the Commission's topics since 1972. Our Articles of Incorporation (adopted in 1973) address most of the items covered in the report.

What we are saying here is that, in NJFHCE, there already exists a nucleus of practicing New Jersey physicians who have been well aware of the influences on medical care discussed in the Commission's report. Your colleagues who are our Officers, Executive Committee, and Board of Trustees, constitute a readily-available cadre of experts who, together with their counterparts in MSNJ, will continue to represent New Jersey physicians. Many of the Commission's recommendations are "right down our alley." Your continued support of our work will enable us to stay "on target."

Individual Medicaid Practitioner (IMP) Number*

The following information has been sent to all Medicaid providers. It is critical that you be aware of these new Medicaid policies.

As a result of discussion between representatives of the Medicaid program and several professional societies representing the Medicaid provider community, the requirement to use IMP numbers on the claim forms has been postponed temporarily. All other areas of the claim form must be completed as described previously.

The following policies were agreed to with regard to the IMP number:

1. A new nine-position IMP number will be assigned to each practitioner. The new IMP number will not be a social security account number.

2. A directory identifying each practitioner with his new IMP number will be published and made available to all Medicaid providers for use in completing their claim forms.

3. After the new IMP numbers have been assigned and made available via the directory, a new implementation date for the IMP number requirements will be announced to all providers.

4. Your *Medicaid claims will be processed* and reimbursed without IMP numbers, until the new implementation date.

5. *Note to Practitioner Groups:* When practitioners in a group practice (whether sole ownership, association, partnership or corporation) submit claims for Medicaid reimbursement, the signature of any member of the group will be accepted on the claim form for billing purposes.

When the new IMP numbers are implemented, the group will be required to enter the IMP number of the practitioner who personally performed the services represented on the claim. If a claim covers services performed by more than one practitioner, the IMP number of any one of the performing practitioners will be accepted.

*Release from the Department of Human Services, Division of Medical Assistance and Health Services, State of New Jersey.

CMDNJ Notes

Stanley S. Bergen, Jr., M.D.
President, CMDNJ

The College of Medicine and Dentistry of New Jersey is on its way toward providing even greater health care services for medically underserved South Jersey through planning and eventual development of an Area Health Education Center in the Camden area.

Area Health Education Centers have proved to be a successful mechanism in rural areas for enticing health professionals—physicians, dentists, physician assistants, allied health personnel, health educators, continuing education specialists—to settle in underserved areas, thereby improving the levels of health care available locally. Emphasis in the development of such centers is placed on training in and delivery of primary care, the development of an ambulatory care center, and innovative approaches to team teaching and curriculum development. The Federal government now has turned similar attention to urban inner city areas with the same objectives in mind.

The goals of an AHEC program are to:

- Improve the specialty and geographic distribution, supply, quality, utilization, and efficiency of health personnel in the health delivery system;
- Improve regionalization of educational responsibilities of health professions schools; and
- Effect change in the distribution of health personnel and in the access to and quality of health care in the AHEC project area.

AHEC programs have been funded since 1971, concentrating largely in medically underserved rural areas with notable models developed in North Carolina and New Mexico. CMDNJ plans to submit its contract proposal in the Spring for the development of a center at the Camden Clinical Campus of the CMDNJ-Rutgers Medical School, in cooperation with other CMDNJ area hospitals, other higher education institutions, and planning agencies.

Leading the movement toward bringing together the various constituents that go to make up an AHEC in the Camden area is Paul T. Jordan, M.D., former mayor of Jersey City and a recognized authority on community health, who recently was named director of the newly created CMDNJ office of Community Health Services Development.

Dr. Jordan brings to us a wide background in dealing with urban health problems and education, plus administrative capabilities, which make him uniquely qualified for this job. A graduate of the CMDNJ-New Jersey Medical School (1968), Dr. Jordan worked in drug treatment programs in Essex and Hudson Counties. He helped establish "Patrick House," a Jersey City volunteer, self-help program to combat drug addiction, which has come to be known as one of the most ambitious programs in that field in the state.

It is our strong belief that in Camden there are a number of reasons to be optimistic about the development of a successful AHEC program. Among them are the area's own demonstrated enthusiasm regarding the need to provide more ambulatory care and to share services, the CMDNJ-Rutgers Medical School's presence in Camden, and the establishment of the CMDNJ-New Jersey School of Osteopathic Medicine in Camden. We are aware of the need to be sensitive to the potential competitive factors involving the practicing physician and therefore have enlisted the cooperative efforts of the county medical and osteopathic societies. We view this effort in ambulatory care and education as complementary and hope physicians in private practice will join the program and become part of the whole.

While we have no desire to duplicate existing resources, we have, following the recent successful bond referendum, the ability to mobilize capital funds for construction of a major ambulatory care center which would encompass our own medical student and resident educational program in family medicine. Along with expressed needs of the Veterans Administration and with inclusion of the private practitioner maybe New Jersey will be first in a cooperative effort, drawing on the strengths of multiple units, to build a network of ambulatory care centers to provide for a portion of the health needs of the Camden area. It is an adventure worth trying.

212th Annual Meeting, MSNJ
May 6-9

Friday, May 5, 1978

3:30 p.m. — Board of Trustees

Saturday, May 6, 1978

8:30 a.m. — Registration Opens
8:30 a.m. — Message Center Opens
9:00 a.m. — 4th Annual Governor's Conference on the "Physician and His Environment"
New Jersey Committee on Trauma
11:30 a.m. — Meeting
12:00 noon — Luncheon
12:00 noon — Golden Merit Award Ceremony followed by Reception for Recipients and their Families
1:30 p.m. — Spencer T. Snedecor Trauma Oration
2:00 p.m. — Motion Picture Theatre
2:30 p.m. — House of Delegates
4:00 p.m. — Reference Committees: Constitution and Bylaws, "A", "B", "D", "G"
7:00 p.m. — 3rd Annual Cozy Morley Wing-Ding and Bash—Cocktails, Dinner, Entertainment, Dancing

Sunday, May 7, 1978

7:15 a.m. — 2nd Annual Prayer Breakfast
8:00 a.m. — Registration Opens
8:30 a.m. — Message Center Opens
8:30 a.m. — 3rd Annual AMA Issues Workshop
9:00 a.m. — Scientific Sessions:
Allergy
Dermatology
Emergency Medicine
Pediatrics, Family Practice, Medicine, Rheumatism
Radiology, Urology
10:00 a.m. — Motion Picture Theatre
10:00 a.m. — Meeting—New Jersey Academy of Ophthalmology and Otolaryngology
10:00 a.m. — Reference Committees: "C", "E", "F", "H"
12:00 noon — Luncheons:
New Jersey Dermatologic Society
New Jersey Chapter, American College of Emergency Physicians
New Jersey State Society of Anesthesiologists
New Jersey Academy of Ophthalmology and Otolaryngology
1:00 p.m. — Scientific Sessions:
Anesthesiology, Cardiovascular Diseases, Medicine
Neurosurgery, Neurology
Obstetrics and Gynecology
Ophthalmology, Plastic and Reconstructive Surgery
Psychiatry, Family Practice, Pediatrics
2:00 p.m. — Motion Picture Theatre
3:00 p.m. — House of Delegates
4:30 p.m. — Meeting—Widows and Orphans Society
6:30 p.m. — Inaugural Reception Honoring President-Elect and Mrs. Krueger
8:00 p.m. — Inaugural Dinner

Monday, May 8, 1978

7:00 a.m. — JEMPAC Breakfast
8:30 a.m. — Registration Opens
9:00 a.m. — Message Center Opens
9:00 a.m. — Scientific Sessions:
Chest Diseases, Medicine
Clinical Pathology, Gastroenterology and Proctology, Surgery
Orthopedic Surgery, Family Practice
Otolaryngology
10:00 a.m. — Motion Picture Theatre
12:00 noon — Luncheons:
New Jersey Chapter, American College of Chest Physicians
New Jersey Academy of Family Practice
New Jersey Orthopaedic Society
New Jersey Society of Physical Medicine and Rehabilitation
1:00 p.m. — Scientific Session on Physical Medicine and Rehabilitation
2:00 p.m. — Motion Picture Theatre
3:00 p.m. — House of Delegates
5:30 p.m. — JEMPAC Wine and Cheese Reception
8:00 p.m. — Annual Dinner-Dance Honoring President and Mrs. Begen

Tuesday, May 9, 1978

7:45 a.m. — Breakfast Meetings:
Bergen and Passaic County Medical Societies
Essex County Medical Society
8:00 a.m. — Special Meeting—Reference Committee "H"
9:00 a.m. — Registration Opens
9:00 a.m. — House of Delegates
12:00 noon — Registration Closes
2:00 p.m. — JEMPAC Board of Directors Meeting
3:00 p.m. — Board of Trustees
4:00 p.m. — Annual Meeting, Board of Governors, Medical Inter-Insurance Exchange of New Jersey

Governor's Conference

"The Physician and His Environment"

Saturday, May 6—9 A.M.
Holiday Inn, Atlantic City

Therapeutic Drug Information Center*

1. Is lecithin effective in the prophylaxis and treatment of hyperlipemia?

Lecithin is a non-essential nutrient in man and is synthesized within the body in adequate amounts.[1] Commercially, lecithin is obtained by an extraction process from egg yolk, brain tissue, or soybeans and is an emulsifer, antioxidant, and stabilizer in foods and pharmaceutical preparations. It virtually is non-toxic to man.[1] Lecithin has been promoted by the health food industry for lowering serum cholesterol levels and preventing heart disease. However, there are very few controlled clinical studies concerning the value of lecithin for the treatment of hyperlipemia or prevention of heart disease.

H. F. ter Welle and associates[2] conducted a controlled open-trial study on a group of twelve patients diagnosed with type II hyperlipoproteinemia and administered 1.2 grams/day of soya lecithin orally for a period of 10 to 20 weeks. Total serum lipid, total cholesterol, and triglycerides were monitored before, during, and after the experiment. The study concluded that there was no significant influence on the lipid parameters under investigation.

In another study, C. Caruzzo, *et al*[3] compared the hypocholesterolemic effects of lecithin and cynarine (an active ingredient of artichoke, another hypocholesterolemic agent under investigation[4]). Twenty-five patients diagnosed with coronary insufficiency, arteriosclerosis, and chronic cholecystitis were treated orally with 550 mg of lecithin daily alone for a period of 60 days and in combination with cynarine. Patients on only lecithin therapy showed no significant effects on cholesterol, but patients who received lecithin and cynarine concomitantly showed a decrease of total cholesterolemia and total lipids.

In conclusion, there is no evidence that lecithin, a substance synthesized endogenously in man in adequate amounts, and as a food supplement, is effective in lowering serum cholesterol level and preventing heart disease.

***The Schwartz Inter-National Pharmaceutic and Therapeutic Drug Information Center of the Brooklyn College of Pharmacy, Long Island University, compiles the information contained in this column each month. The Center serves as a source of intelligence on therapeutic and pharmaceutic information not readily available to physicians, at no charge to them, and provides this information with minimal time involvement. It is staffed by trained pharmacists; Jack M. Rosenberg, Pharm. D., Associate Professor and Chairman, Division of Clinical Pharmacy, Brooklyn College of Pharmacy, is Director and Walter Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College, is pharmacologist consultant. The service is available Monday through Friday from 9 a.m. to 4:30 p.m.—telephone (212) 622-8989 or 303-2735. The following are questions and answers handled by the Center recently.**

This month's column was prepared by J. M. Rosenberg, M.S., Pharm. D., M. K. Raina, M. Pharm., Ph.D., P. Sangkachand, B.S., Alan Bakst, Pharm. D., Doris Lau, B.S., Brooklyn College of Pharmacy, LIU.

References

[1]Fletcher DC: Lecithin for hyperlipemia: Harmless but useless. *JAMA* 238:64, (July 4) 1977.

[2]ter Welle HF, *et al:* The effect of saya lecithin on serum lipid values in type II hyperlipoproteinemia. *Acta Med Scand* 195:267-271, 1974.

[3]Caruzzo C, *et al: Minerva Med* 60:4514-4518, (Nov. 14) 1969.

[4]Anon: *The Merck Index,* Ninth Edition. Rahway, New Jersey, Merck & Co., Inc., 1976, p. 362.

2. Do you have any information about the use of saralasin in hypertension?

Saralasin is a competitive antagonist of angiotensin II, the active form of angiotensin, a natural pressor hormone. It is under investigation by Eaton in the United States for use as a diagnostic agent in severe hypertension which is maintained by angiotensin. Saralasin also has been used to treat a few patients with malignant hypertension, and may be useful in the treatment of acute blood pressure elevations associated with renal failure and excessive renin production. Renin is an enzyme acting upon angiotensinogen to form angiotensin I, which then is broken down to angiotensin II.

Angiotensin II increases blood pressure by binding to both renal and peripheral vascular smooth muscle receptors, with resulting vasoconstriction, and also by stimulating the adrenal glands to secrete aldosterone. Saralasin, an analog of angiotensin II, competes with angiotensin II for receptor sites and blocks its pressor effects. Patients with renovascular lesions produce large amounts of renin and angiotensin. However, if plasma renin activity is measured peripherally, it may show normal levels even though high levels exist in the renal veins. A dramatic hypotensive effect following saralasin injections identifies the patient as having angiotensinogenic, or high-renin, hypertension which may not be apparent from peripheral measurements. The patient then can undergo more extensive tests to define the specific renovascular lesions which cause this, and possibly can be cured with surgery or treated with appropriate pharmacological agents.

The method of saralasin administration used most often was continuous infusion. Streeten *et al*[1] studied the effects of infusing saralasin at a rate ranging from 0.05 to 10 ug per kilogram per minute for up to five hours in 60 hypertensive patients. Blood pressure was reduced in 16 out of the 60 patients. All 16 who responded had elevated plasma renin activity in the renal vein, peripheral veins, or both.

A seemingly simpler approach is to administer saralasin as a bolus injection. Marks *et al*[2] gave saralasin by rapid intravenous (bolus) injection of 10 mg to 21 hypertensive patients, 13 with renovascular or high-renin essential hypertension, and eight controls having essential hypertension and normal or low peripheral plasma renin activity. A marked hypotensive response occurred in the 13 high-renin patients. No change from pre-bolus pressure was observed after ten minutes in the eight control patients. Blood pressure response to bolus injection correlated with blood pressure response to subsequent infusion of saralasin in all patients.

Possible adverse reactions to saralasin infusion include sudden hypertension or severe hypotension. In large enough doses, saralasin in the presence of excess sodium, has a pressor effect. Thus, infusion should be preceded by a diuretic such as I.V. furosemide (Lasix®) three hours prior to infusion, or with a low-sodium diet for three to four days. In low renin hypertensives, saralasin may increase blood pressure dramatically, and should not be used in such patients. Severe drops in blood pressure have occurred in patients with hypertension under treatment with antihypertensive drugs, pacticularly direct-acting vasodilating agents.[3] Therefore, all antihypertensive therapy should be discontinued for several days prior to testing. Also, an overshoot into malignant hypertension may result when the saralasin infusion is stopped. In patients with pheochromocytoma, cases of both hypertensive crisis and hypotension have been reported following saralasin injection.[4,5]

In conclusion, saralasin shows much promise as a useful diagnostic tool in detection of high-renin hypertension.

References

[1]Streeten DHP, *et al:* Use of an angiotensin II antag-onist (saralasin) in the recognition of "angiotensinogenic" hypertension. *N Engl J Med* 292:657-662, (March 27) 1975.

[2]Marks LS: Saralasin bolus test: Rapid screening pro-

[3]Pettinger WA and Keeton K: Hypotension during angiotensin blockade with saralasin. *Lancet* 1:1387-1388, (June 21) 1975.

[4]Dunn FG, *et al:* Pheochromocytoma crisis induced by saralasin. *N Engl J Med* 295:605-606, (Sept. 9) 1976.

[5]Rockel A, *et al:* (letter) Depressor effect of saralasin in

3. Is there hepatotoxicity associated with chronic use of acetaminophen in therapeutic doses?

Acetaminophen (Tylenol®, Nebs®, Datril®) is a widely available non-prescription drug with mild analgesic and antipyretic effects. It is used alone or combined with other drugs including other analgesic agents, cold remedies, and others. Acetaminophen, in recommended therapeutic doses, avoids the gastric irritant effects, hypersensitivity, and hematological problems associated with aspirin, and is generally regarded as a "safe" drug.

Overdoses of acetaminophen have been associated with renal damage, disturbances in the clotting mechanism and myocardial necrosis.[1] The toxicity of primary concern, however, is hepatotoxicity. Large overdoses of acetaminophen, and in some cases not so large overdoses, have produced fatal hepatic necrosis in man and other animals.[2-4]

After small therapeutic doses, acetaminophen is conjugated in the liver with glucuronic acid or sulfate to form non-toxic compounds that are excreted by the kidney. The cytochrome P-450 system also plays a role in the metabolism of acetaminophen and oxidizes a small amount of drug into postulated toxic intermediates which quickly are conjugated preferentially with hepatic glutathione and safely excreted by the kidney. However, when a large dose of acetaminophen is taken, the hepatic glutathione stores are depleted and become unavailable for conjugation with the toxic intermediates. These metabolites form irreversible complexes with hepatic tissue causing liver damage and necrosis. Enzyme-inducing agents such as barbiturates and alcohol may accelerate the metabolism of acetaminophen to toxic metabolites and may hasten this hepatotoxic reaction associated with acetaminophen overdose.[5] Although there are many excellent articles concerning the toxicity caused by large overdoses of acetaminophen, there are very few reports or studies on the hepatic effects of acetaminophen in those who use the drug in recommended therapeutic doses on a chronic basis.[6-9]

A double-blind, controlled study by McNeil Laboratories involved dosing 35 elderly patients with 4 grams of acetaminophen per day, for a month. There were no statistically significant changes in liver enzyme tests from baseline values in these patients.[10] The four grams per day is the manufacturer's highest recommended daily dose. Koch-Weser[6] suggests that the dose of acetaminophen not exceed three grams per day for adults and 1.2 grams in any child.[11]

Barker, *et al*[12] reported on three patients who consumed between 5 and 8 grams of acetaminophen per day, doses above the recommended therapeutic range, during a period of several weeks. All of the patients had transient elevations of serum hepatocellular enzyme concentrations and histologic evidence suggestive of liver damage related to the use of acetaminophen.

Johnson *et al*[13] reported a case of a patient taking about 3 grams of acetaminophen per day for a year to relieve "chronic nonspecific arthralgias." Liver function tests were abnormal and liver biopsy showed evidence of acute and chronic liver damage. After acetaminophen was discontinued, the liver function tests gradually improved and were normal after five weeks. Within two weeks after rechallenge with 2.925 mg./day of acetaminophen, liver function tests became abnormal again.

Considering the acute and chronic toxicity of acetaminophen, it would be reasonable for physicians prescribing and pharmacists dispensing prescription medications containing acetaminophen to counsel patients about avoiding over-the-counter products containing acetaminophen which may bring the total daily dose to exceed the daily recommended level. This instruction may be particularly important for patients taking enzyme-inducing drugs such as phenobarbital or alcohol.

References

[1]Matthew Henry: Acute acetaminophen poisoning. *Clin Toxicol* 6:9-11, 1973.

[2]Fernandez E: Acetaminophen toxicity. *N Engl J Med* 296:577, (March 10) 1977.

[3]Clark, IR, *et al:* Hepatic damage and death from overdose of paracetamol. *Lancet* 1:66-69, 1973.

[4]Prescott LF, *et al:* Plasma-paracetamol half-life and hepatic necrosis in patients with paracetamol overdosage. *Lancet* 1:519-522, 1971.

[5]Mitchell J, *et al:* Acetaminophen-induced hepatic necrosis. I: Role of drug metabolism. *J. Pharmacol Exp Ther* 187:185-194, 1973.

[6]Koch-Weser J: Acetaminophen. *N Engl J Med* 295: 1297-1300, (December 2) 1976.

[7]Rumack B and Matthew H: Acetaminophen poisoning and toxicity. *Pediatr* 55: 612, (June) 1975.

[8]Mitchell J, *et al:* Acetaminophen-induced hepatic injury. Protective role of glutathione in man and rationale for therapy. *Clin Pharmacol Ther* 16: 676-683, 1974.

[9]Ameer K and Greenblat D: Acetaminophen. *Ann Intern Med* 87: 202-220, (August) 1977.

[10]McNeil Laboratories (personal communication from Dr. Miller).

[11]*Physicians' Desk Reference,* 31st Edition. Oradell, New Jersey, Medical Economics Company, 1977, p. 1034.

[12]Barker J, *et al:* Chronic excessive acetaminophen use and liver disease. *Ann Intern Med* 87: 299-301, (September) 1977.

[13]Johnson G and Tolman K: Chronic liver disease and acetaminophen. *Ann Intern Med* 87: 302-304, (September) 1977.

Physicians Seeking Location in New Jersey

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly to them.

ALLERGY—Zev M. Muŋk, M.D., 5505 Cavendish Boulevard, Apt. 504, Montreal, Quebec, Canada H4V2Y6. McGill 1974. Subspecialty, internal medicine. Board certified (IM). Multi-specialty group, partnership, research. Available August 1978.

ANESTHESIOLOGY—Alan D. Weinstock, M.D., 320 Ocean Parkway, Apt. E-7, Brooklyn 11218. Einstein 1974. Board eligible. Group or partnership. Available July 1978.

Barry S. Wilderman, M.D., 52316-1 Biloxi Circle, Fort Hood, Texas 76544. Temple 1972. Board certified. Solo, specialty group, partnership. Available July 1978.

Robert Y. Gumnit, M.D., 171-6 Echelon Road, Voorhees 08043. Jefferson Medical College 1975. Board eligible. Group, partnership, solo, or institution. Available July 1978.

Rudraiah Raja Sekhar, M.D., 1627 S. Michigan Avenue, Apt. 305, Villa Park, Illinois 60181. Bangalore (India) 1967. Board eligible. Group, partnership, solo. Available July 1978.

CARDIOVASCULAR DISEASES—Stephen E. Weinberg, M.D., 663 Cumberland Avenue, Syracuse, New York 13210. Hahnemann 1971. Subspecialty, internal medicine. Board certified (IM). Group, partnership, institution. Available July 1978.

Mohammad S. Choudhry, M.D., 1523 Central Park Avenue, Apt. 16-D, Yonkers, New York 10710. Nishtar (West Pakistan) 1971. Subspecialty, internal medicine. Board certified (IM). Group, solo, or institution. Available July 1978.

Basant K. Khandelwal, M.D., 80-15 41st Avenue, Jackson Heights, New York 11373. JLN Medical College (Ajmer, India) 1971. Subspecialty, internal medicine. Board certified (IM). Any type practice. Available July 1978.

William M. Lieppe, M.D., 1809 Erwin Road, Apt. B., Durham, North Carolina 27705. University of Pennsylvania 1972. Subspecialty, internal medicine. Board certified (IM). Group, partnership, research. Available July 1978.

Bhadresh A. Patel, M.D., 501 North 11th Street, Apt. 307, Philadelphia, Pennsylvania 19141. Baroda Gujarat (India) 1971. Subspecialty, internal medicine. Board certified (IM). Group, or solo. Available July 1978.

John J. Cassel, M.D., 101 Valley Drive, Bollingbrook, Illinois 60439. Jefferson Medical College 1973. Subspecialty, internal medicine. Board certified (IM). Group or partnership. Available July 1978.

DERMATOLOGY—Joseph J. Chanda, M.D., 3525 Charter Place, Ann Arbor, Michigan 48105. Georgetown 1971. Subspecialty, internal medicine. Board eligible (IM). Group, partnership, solo. Available July 1978.

EMERGENCY MEDICINE—Thomas J. Rosko, M.D., Box 1341, Hershey Medical Center, Hershey, Pa. 17033. Penn State 1976. Group or partnership. Available June or July 1978.

FAMILY PRACTICE—Thomas P. Harakal, M.D., 202 Laura Drive, Danville, Pa. 17821. Temple 1975. Board eligible. Group or partnership. Available July 1978.

Lloyd A. Davis, M.D., 3 Dartmouth Ave., Bridgewater 08807. Georgetown 1975. Board eligible. Single specialty group or partnership. Available July 1978.

Ira Rabin, M.D., 153 Pierrepont Street, Brooklyn, New York 11201. Michigan 1969. Board eligible. Group. Available on 30 days' notice.

Gordon S. Walbroehl, M.D., 406 Dupont Way, Wright-Patterson AFB, Ohio 45433. CMDNJ 1972. Board eligible. F.P. residency, teaching staff. Available August 1978.

B. D. Agarwal, M.D., 245 Oakwood Road, Apt. 1-C, Charleston, West Virginia 25314. India 1966. Partnership or solo. Available.

Jeffrey C. Oppenheim, M.D., 9 Wilton Street, Princeton 08540. Rutgers (CMDNJ) 1975. Board eligible. Group, partnership, institution. Available September 1978.

Robert M. Pallay, M.D., 38 Deanna Drive, Apt. 99, Somerville 08876. Hadassah (Israel) 1964. Subspecialty, emergency medicine. Board eligible (FP). Partnership, solo, research. Available July 1978.

GASTROENTEROLOGY—Steven C. Fiske, M.D., 3312 Stearns Hill Road, Waltham, Massachusetts 02154. NYU 1973. Board certified (IM). Partnership or group (academically oriented). Available July 1978.

Jacob Nudel, M.D., 300 Winston Drive, Cliffside Park 07010. NYU 1973. Board certified (IM). Group, partnership, or solo. Available July 1978.

GENERAL PRACTICE—Adaline E. Zalkin, M.D., 250 Beverly Blvd., Upper Darby, Pa. 19082. Guadalajara 1975. Partnership. Available July 1978.

Gideon C. Zikel, M.D., 4162 North Maryland Avenue, Shorewood, Wisconsin 53211. Subspecialty, internal medicine. Group, institution. Available July 1978.

Douglas A. Howell, M.D., Lyme Road, Hanover, New Hampshire 03755. Temple 1973. Subspecialty, internal medicine. Board certified (IM). Group, research, institution. Available July 1978.

HEMATOLOGY—Brian K. Walker, M.D., 5 St. James Court, Philadelphia, Pennsylvania 19106. Cornell 1973. Subspecialty, internal medicine. Board certified (IM). Institution, research, group. Available July 1978.

Vijaykumar P. Shah, M.D., 636 Brooklyn Avenue, Apt. 2-D, Brooklyn, New York 11203. M.S. University (Baroda, India) 1969. Subspecialty, pathology. Board certified (pathology). Institution, research, group. Available July 1978.

Daniel Katcher, M.D., 1300 Army-Navy Drive, Arlington, Virginia 22202. University of Vermont 1972. Subspecialty, internal medicine. Board Certified (IM). Group, research. Available August 1978.

INTERNAL MEDICINE—Richard A. Cole, M.D., 98 Sewall Ave., Apt. #1, Brookline, Mass. 02146. Johns Hopkins 1974. Subspecialty, diabetes and endocrinology. Board certified. Solo, partnership, or group. Available July 1978.

John F. Jacobs, Jr., M.D., 429 Mannor St., Ann Arbor, Michigan 48105. Virginia 1973. Subspecialty, nephrology. Board certified. Group or hospital. Available July 1978.

Charles L. Starke, M.D., 4540 MacArthur Blvd., Washington, D.C. 20007. Einstein 1975. Board eligible. Partnership, single specialty group, multispecialty group. Available July 1978.

Duck Sung Chun, M.D., 910 Bellstone St., St. Louis, Mo. 63119. Seoul 1969. Subspecialty, cardiovascular diseases. Board certified. Institution, partnership, research. Available July 1978.

Jonathan Alexander, M.D., 1569 Boulevard, New Haven, Conn. 06511. Einstein 1973. Subspecialty cardiovascular diseases. Board certified. Institution, single specialty group, partnership. Available July 1978.

Romesh K. Japra, M.D., 440 Richard Park East, suite 407, Richmond Heights, Ohio 44143. India Institute of Medicine (New Delhi) 1971. Subspecialty, cardiovascular diseases. Board certified. Multispecialty group, partnership, solo, industrial. Available July 1978.

Thomas Y. Ko, M.D., 131 Sharbot Dr., Pittsburgh, Pa. 15237. Taipei (Taiwan) 1972. Subspecialty, cardiovascular diseases. Board certified. Partnership, solo, multispecialty group. Available July 1978.

Khalid R. Chaudry, M.D., 250 Beverly Blvd., Upper Darby, Pa. 19082. King Edward (Pakistan) 1971. Subspecialty, cardiovascular diseases. Board certified. Multispecialty group, single specialty group, partnership. Available July 1978.

Ricky Y. Ho, M.D., 230 Yonkers Ave., Yonkers, N.Y. 10701. Hong Kong 1970. Subspecialty, gastroenterology. Board certified. Single specialty group, multispecialty group, solo. Available July 1978.

Larry I. Good, M.D., 1450 Bittersweet Dr., Blackwood 08012. South Carolina 1973. Subspecialty, gastroenterology. Board certified. Partnership, single specialty group, multispecialty group. Available July 1978.

Rajkumar K. Warrier, M.D., 68-A Manhattan Court, Brooklyn, New York 11235. Calicut, Kerala (India) 1969. Subspecialty, gastroenterology. Board eligible. Institution, research, solo. Available June 1978.

Mary S. Vesoniaraki, M.D., 81 Somerset Ave., Garden City, N.Y. 11530. Athens 1967. Subspecialty, hematology. Board eligible. Institution, multispecialty group, single specialty group. Available July 1978.

Charles A. Henderson, M.D., 6341 Busch Blvd. Columbus, Ohio 43229. Pittsburgh 1973. Subspecialty, hematology. Board certified. Partnership, single specialty group, multispecialty group. Available July 1978.

Adrian A. Bianco, M.D., 6330 Lincoln Ave., Morton Grove, Ill. 60053. Del Salvador (Buenos Aires) 1971. Subspecialties, oncology, hematology. Board certified. Multispecialty group, institution, partnership. Available July 1978.

Carol M. Sholtis, M.D., 2532-F Heather Hills Rd., Toledo, Ohio 43614. Medical College of Ohio 1973. Subspecialty, oncology. Board certified. Single specialty group, multispecialty group, partnership. Available July 1978.

Robert S. Rudenstein, M.D., 275 Bryn Mawr Ave., Bryn Mawr, Pa. 19010. Pittsburgh 1973. Subspecialty, endocrinology. Board certified. Single specialty group, partnership, multispecialty group. Available July 1978.

Raymond J. Casciari, M.D., 2821 North Lowell Lane, Santa Ana, Ca. 92706. Temple 1973. Subspecialty,

pulmonary diseases. Board certified. Single specialty group, partnership, solo. Available July 1978.

Stephen M. Kreitzer, M.D., 33 Pond Ave., Brookline, Mass. 02146. Einstein 1971. Subspecialty, pulmonary diseases. Single specialty group, multispecialty group, institution. Available July 1978.

Douglas G. Mufuka, M.D., 608 N. Cuyler Ave., Oak Park, Ill. 60302. SUNY 1973. Subspecialty, nephrology. Board eligible. Single specialty group, institution, multispecialty group. Available July 1978.

David T. Klein, M.D., 4750 Bedford Ave., Brooklyn 11235 (212-743-1839). Brussels 1975. Board eligible. Group or solo. Available July 1978.

Jo U. Choi, M.D., 165 Lyons Ave., Apt. C-6, Newark 07112. Seoul (Korea) 1968. Subspecialty, oncology. Board eligible. Solo, group, partnership, hospital. Available July 1978.

Frederick Lewis, M.D., 445 E. 68th Street, New York 10021. Albany 1971. Subspecialty, endocrinology. Board certified. Group, partnership, or solo. Available July 1978.

Edwin Kolodny, M.D., 60 E. Linden Ave., Englewood 07631. NYU 1973. Subspecialty, pulmonary diseases. Board certified. Group or partnership. Available July 1978.

Avelino S. B. Rosales, M.D., 155-12 79th Street, Howard Beach, New York 11414. Univ. of the East, 1972 (Philippines). Subspecialty, nephrology. Board eligible. Group. Available July 1978.

Mohammad Yusaf Sandhu, M.D., Troy Towers, Apt. 1801, Mountain Road, Union City 07087. King Edward (Lahore, Pakistan). Subspecialty, cardiology. Group, partnership, solo. Available.

Mohammad S. Choudhry, M.D., 1523 Central Park Avenue, Yonkers, New York 10710. Nishtar (Pakistan). Subspecialty, cardiology. Board certified (IM). Solo or partnership. Available July 1978.

Bharti Desai Eanni, M.D., 23 Wedgewood Circle, Eatontown 07724. Grant Medical College (India) 1973. Group, partnership, hospital practice. Available.

Marc A. Goldman, M.D., 2413 Elmington Drive, Richmond, Virginia 23233. NYU 1973. Subspecialty, Gastroenterology. Board certified (IM). Group or partnership. Available July 1978.

Soo Woong Park, M.D., 4718 Kenmore Avenue, Apt. 303, Alexandria, Virginia 22304. Seoul (Korea) 1969. Subspecialty, nephrology. Board certified (IM). Group or solo. Available July 1978.

Payup Thajchayapong, M.D., 500 Central Avenue, Apt. 308, Union City 07087. Siriraj (Thailand) 1968. Subspecialty, endocrinology. Board certified. Any type practice. Available July 1978.

Ramesh M. Shah, M.D., 4 Park Avenue, Apt. 5-E, New York, New York 10016. Grant Medical (Bombay, India) 1972. Subspecialty, pulmonary diseases. Board certified. Group, partnership, solo, or institution/industrial. Available July 1978.

Richard J. Eatroff, M.D., 1140-7 Kirkbride Road, Voorhees Township 08043. Guadalajara 1972. Subspecialty, gastroenterology. Board certified. Group or partnership. Available July 1978.

Edward B. Biederman, M.D., 6501 Cow Pen Road, Apt. D-210, Miami Lakes, Florida 33014. NYU 1973. Subspecialty, endocrinology. Board certified. Group or partnership. Available July 1978.

Mohammad H. Al-Asha, M.D., 70 Branchbrook Drive, Belleville 07109. Damascus (Syria) 1972. Subspecialty, gastroenterology. Board certified. Group or partnership. Available July 1978.

Arthur G. Manalo, M.D., 5804 Annapolis Road, #810, Bladensburg, Maryland 20710. University of the East (Philippines) 1972. Board eligible. Solo, partnership, emergency room. Available July 1978.

Edward T. Swibinski, M.D., 352 E. 89th Street, Apt. 1-C, New York, New York 10028. NYU 1975. Board eligible. Group, research, emergency room. Available July 1978.

Alan R. Vinitsky, M.D., 2801 Stanbridge Street, Apt. 212-A, Norristown, Pennsylvania 19401. University of Pennsylvania 1974. Board certified. Group, partnership, institution. Available July 1978.

Myron O. Goldbert, M.D., 3755 Henry Hudson Parkway, Riverdale, New York 10463. Albert Einstein 1971. Subspecialty, gastroenterology. Board certified. Group or partnership. Available July 1978.

Munir A. Hasan, M.D., 80 Palisade Avenue, Apt. 34, Jersey City 07306. Baghdad (Iraq) 1972. Subspecialty, general practice. Board certified. Group or partnership. Available July 1978.

Kevin V. Carey, M.D., 49 Marion Street, Apt. 6-C, Brookline, Massachusetts 02146. NYU 1973. Subspecialty, gastroenterology. Board certified. Group or partnership. Available July 1978.

Najib A. Abdallah, M.D., 12 Meadow Lane, Lenox, Massachusetts 01240. Cairo (Egypt) 1971. Board eligible. Group, solo, institution. Available July 1978.

Young S. Shim, M.D., 1925 Eastchester Road, Apt. 17-A, Bronx, New York 10461. Subspecialty, pulmonary diseases. Board certified. Group or solo. Available July 1978.

Harish Chander, M.D., 42-52 Union Street, Apt. 518, Flushing, New York 11355. New Delhi (India) 1973. Subspecialty, nephrology. Board eligible. Group, partnership. Available July 1978.

Bodinor Thepchatri, M.D., 9000 Harry Hines Boulevard, Dallas, Texas 75235. Chiengmai (Thailand) 1972. Board eligible. Institution, emergency room, partnership, solo. Available July 1978.

Satnam S. Uppal, M.D., 2190 Gateway Terrace, Apt. 307A, Easton, Pennsylvania 18042. Christian Medical College (Ludhiana, India) 1968. Board eligible. Group, partnership, solo. Available July 1978.

Ira Spiler, M.D., 27 Sutherland Road, Brighton, Massachusetts 02146. Einstein 1971. Subspecialty, endocrinology. Board certified (IM). Group, partnership, or geographic (full time). Available July 1978.

Stanley R. Zimmerman, M.D., 350 Lenox Road, Apt. 4-N, Brooklyn, New York 11226. Einstein 1975. Board eligible. Group, partnership. Available July 1978.

Francis C. D'Mello, M.D., 48-30 91st Place, Elmhurst, New York 11378. Grant Medical 1970. Subspecialty, gastroenterology. Board certified. Group, partnership, solo. Available August 1978.

Chandra Nouli, M.D., 2441 Webb Avenue, Apt. 1-E, Bronx, New York 10468. Gandhi (India) 1968. Subspecialty, pulmonary medicine. Board eligible. Solo or hospital-based. Available July 1978.

Sung H. Ryoo, M.D., 1575 North Avenue, Apt. 18, Bridgeport, Connecticut 06604. Kyungpook (Korea) 1969. Subspecialty, hematology/oncology. Board certified. Group, partnership, solo. Available July 1978.

Robolge A. K. Lenora, M.D., 110 Caton Avenue, Apt. 4-H, Brooklyn, New York 11218. Sri Lanka (Ceylon) 1970. Subspecialty, pulmonary medicine. Board certified. Group, partnership, or hospital-based. Available.

George M. Massoud, M.D., 4300 Alton Road (Mt. Sinai Hospital), Miami Beach, Florida 33140. Baghdad (Iraq) 1971. Board eligible. Any type practice. Available July 1978.

Husman Khan, M.D., 126 Route 46 East, Apt. 36-A, Lodi 07644. S.N. Medical College (Agra, India) 1973. Board eligible. Group or institution. Available July 1978.

Harmohinder S. Gogia, M.D., Bergen Pines Hospital, Ridgewood Avenue, Paramus, New Jersey 07652. Government Medical College (India) 1969. Board eligible. Group, partnership, solo. Available July 1978.

Robert J. Levai, M.D., 32 Lower Overlook Road, Summit 07901. Albany (New York) 1975. Board eligible. Group, partnership. Available July 1978.

Miguel A. Sarriera, M.D., Juan Guell 131-133 104 TA, Barcelona 14, Spain. Barcelona 1960. Board eligible. Any type practice. Available July 1978.

Pillutla V. Sastry, M.D. 501 Sixth Street, Apt. 4-H, Brooklyn, New York 11215. Guntur (India) 1968. Subspecialty, cardiovascular diseases. Board certified. Group, partnership, solo. Available.

NEPHROLOGY—Gwang O. Kim, M.D., 2233 Foxbourne Road, Apt. 8, Toledo, Ohio 43614. Yonsei (Korea) 1969. Subspecialty, internal medicine. Board eligible (IM). Group, partnership, solo. Available July 1978.

Ralph J. Caruana, M.D., 2556 Alderney Lane, Winston-Salem, North Carolina 27103. Tufts 1974. Subspecialty, internal medicine. Board eligible (IM). Group, research. Available July 1978.

Richard F. Tonzola, M.D., 18 Park Road, Belmont, Massachusetts 02178. New Jersey Medical School (CMDNJ) 1973. Board eligible. Group, partnership, research. Available July 1978.

NEUROLOGY—Theodore G. Probst, M.D., 10 Waterside Plaza, New York City 10010. Jefferson 1971. Board eligible. Partnership, single specialty group, multispecialty group. Available July 1978.

OBSTETRICS/GYNECOLOGY—Daniel W. Shapiro, M.D., 6812 Criner Rd., Huntsville, Ala. 35802. NYU 1971. Board eligible. Single specialty group, partnership, multispecialty group. Available August 1978.

Akbar Omar, M.D., 85 Riverdale Ave., Yonkers, N.Y. 10701. Dow Medical (Pakistan) 1972. Board eligible. Multispecialty group, partnership, solo. Available July 1978.

Leonard Weather, Jr., M.D., 601 N. Broadway, Baltimore 21205. Rush 1974. Board eligible. Solo, research, partnership, single specialty group, institution, multispecialty group. Available July 1978.

Kenneth A. Desandies, M.D., 668 Lenox Rd., Brooklyn, NY 11203. Meharry 1973. Board eligible. Multispecialty group, single specialty group, partnership. Available August 1978.

Fa-Tsair Shieh, M.D., 808 Massachusetts Ave., Luray, Virginia 22835. China Medical (Taiwan) 1970. Board eligible. Solo, associate, group. Available.

D. Chakrabarty, M.D., 74 Fairview Avenue, Great Neck, New York 11023. University of Calcutta (India) 1956. Board certified. Group or partnership. Available.

Surinder Kumar, M.D., 751 Parkdale Avenue, Apt. 502, Ottawa, Ontario K1Y-1J7, Canada. Agra (India) 1969. Board eligible. Partnership or multispecialty. Available.

Shyue-Yi Chang, M.D., 10 North Woodington Road, Apt. B-9, Baltimore, Maryland 21229. Kaohsiung (Taiwan) 1971. Board eligible. Group, partnership, solo. Available July 1978.

Emmanuel A. Atiemo, M.D., 155 East Hartsdale Avenue, Hartsdale, New York 10530. University of Ghana 1970. Board eligible. Group, partnership, solo. Available July 1978.

Ajay K. Maitra, M.D., 8432 East Jefferson, Apt. 311, Detroit, Michigan 48214. Calcutta 1963. Subspecialty, oncology. Board eligible. Partnership, solo, or institution. Available July 1978.

Lloyd A. Prezant, M.D., 83-48 Charlecote Ridge, Jamaica Estates, New York 11432. Guadalajara 1973. Board eligible. Group or partnership. Available July 1978.

Pedro H. Ramirez, M.D., 543-01 Regis Ct., Salem Harbour, Grant Avenue and State Road, Andalusia, Pennsylvania 19020. San Marcos (Peru) 1969. Board eligible. Group, partnership, or solo. Available July 1978.

Jon R. Snyder, M.D., 3214 Orion Circle, Rome, New York 13440. NYU 1972. Board eligible. Group or partnership. Available July 1978.

Diana Barrows, M.D., 100-A Phelps Avenue, New Brunswick 08901. University of California (Irvine) 1973. Board eligible. Any type practice. Available August 1978.

OCCUPATIONAL MEDICINE—Louis Z. Fauteux, Jr., M.D., Twinbridge Apts., No. 344F, Penns Grove 08069. Georgetown 1947. Board certified (IM). Industrial medicine. Available.

ONCOLOGY—Ramesh K. Shah, M.D., 1882 Manor Drive, Union 07083. Baroda (India). Group or solo. Available July 1978.

OPHTHALMOLOGY—Dion R. Ehrlich, M.D., 5148-A Long Branch Lane, Columbus, Ohio 43213. George Washington 1973. Board eligible. Single specialty group, partnership, solo. Available July 1978.

Miguel Pro, M.D., 801 Cooper Landing Rd., Cherry Hill 08002. Cayetano Heredia (Lima, Peru) 1972. Board eligible. Institution. Available January 1978.

Kenneth J. Wolf, M.D., 3555 Bainbridge Ave., Bronx, N.Y. 10467. Einstein 1974. Board eligible. Solo, group. Available July 1978.

Clark Robert Cobble, M.D., 3843 Eagle Heights, Clinton, Iowa 52732. Vanderbilt 1970. Any type practice. Available September 1978.

Andrew Zorbis, M.D., 5700 Arlington Avenue, Bronx, New York 10471. Downstate 1973. Board eligible. Group, partnership, solo. Available July 1978.

Alan N. Kohn, M.D., 305 East 86th Street, Apt. 20-N, New York, New York 10028. Washington (Missouri) 1973. Board eligible. Group, partnership, institution. Available July 1978.

Edward A. Gluck, M.D., 70-20 108th Street, Forest Hills, New York 11375. Tufts 1974. Group, partnership, solo. Available July 1978.

OTOLARYNGOLOGY—Ramesh J. Patel, M.D., 316 South 6th Street, Mattoon, Illinois 61938. Baroda (India) 1966. Board eligible. Group, partnership, solo. Available March 1978.

OTORHINOLARYNGOLOGY—Jong Ho Won, M.D., 1808 Rambling Ridge Lane, Apt. 102, Baltimore, Maryland 21209. Korea 1966. Board eligible. Group, solo, or partnership. Available July 1978.

PATHOLOGY—Kanchan A. Shimpi, M.D., 1 Hospital Dr., Cheverly, Md. 20785. B.J. Medical (India) 1969. Board eligible. Institution, multispecialty group, single specialty group. Available 1978.

Kamlesh R. Gupta, M.D., 12 Arthur Court, Closter 07624. Christian Medical College (Ludhiana, India) 1968. Board eligible. Group, institution or academic-oriented. Available July 1978.

Chuang-Shian Kiang, M.D., 91-30 50th Avenue, Elmhurst, New York 11373. National Taiwan 1972. Board eligible. Group, partnership, institution. Available July 1978.

John Elias, M.D., 3450-26R Wayne Avenue, Bronx, New York 10467. St. Andrew's (Scotland) 1973. Subspecialty, clinical pathology. Board eligible. Group, partnership, institution. Available July 1978.

PEDIATRICS—Reynaldo G. Maniago, M.D., 784-A Bayshore Dr., MacDill AFB, Tampa, Fla. 33621. University of the East (Philippines) 1971. Also general practice. Board eligible. Solo, multispecialty group, single specialty group, partnership, emergency room, institution. Available July 1978.

An-Shuang Tsai, M.D., 1255 Pennsylvania Ave., Apt. 8-D, Brooklyn 11239. Kaoshiung Medical 1971. Subspecialty, hematology. Board eligible. Group, partnership, hospital. Available July 1978.

Vojislava C. Russo, M.D., 532 E. Wimbledon Dr., Charleston S.C. 29412. Downstate 1973. Board eligible. Group, partnership, hospital. Available July 1978.

Prasao C. Kakarala, M.D., 7545 E. Treasure Dr., Apt. 4-J, Miami Beach, Fla. 33141. Rangaraya Medical (India) 1971. Board eligible. Group, partnership, solo, clinic, multispecialty group.

Asuncion M. Macasinag, M.D., 96 Fleet Pl., Mineola, N.Y. 11501. Santo Tomas (Philippines) 1971. Board eligible. Any type of practice. Available July 1978.

Charles R. Bushong, Jr., M.D., 1560 N. Prospect Avenue, Apt. 808, Milwaukee, Wisconsin 53202. Columbia 1973. Any type practice. Available July 1978.

Charles F. Kelley, Jr., M.D., 3854 Delco Road, Pittsburgh, Pennsylvania 15227. Pittsburgh 1975. Board eligible. Any type practice. Available July 1978.

Shahid N. Khan, M.D., 3245 Belle Court, Royal Oak, Michigan 48072. King Edward (Pakistan) 1973. Subspecialty, neonatology. Board eligible. Hospital-based neonatology or group. Available July 1978.

Mark D. Simms, M.D., 2200 Benjamin Franklin Parkway, Apt. W-308, Philadelphia, Pennsylvania 19130. SUNY (Upstate) 1974. Board eligible. Group, partnership, solo, research, institution. Available July 1978.

David R. Croughan, M.D., 209 Tuscan Road, Maplewood 07040. Guadalajara 1973. Board eligible. Group, solo, emergency room, hospital-based. Available.

Rao B. K. Potluri, M.D., 2225 Canary Drive, Rockford, Illinois 61103. Sri Venkateswara (India) 1972. Board eligible. Group, partnership, institution. Available July 1978.

Aditya Kaul, M.D., 53 Garden Court, Eggertsville, New York 14226. M. Azad (India) 1971. Board eligible. Group, research, institution. Available July 1978.

Vege Ramakrishna Rao, M.D., 3 Marshal Street, Apt. 8-K, Irvington 07111. Guntur (India) 1970. Board eligible. Group, partnership, industrial. Available July 1978.

Talmor Hanoch, M.D., c/o The Field Clinic, Centreville, Mississippi 39631. Hadassah (Israel) 1974. Board eligible. Group, partnership. Available March 1978.

Rayasam V. Prasad, M.D., 75 Delafield Street, Apt. G, New Brunswick 08901. S.V. Medical College (India) 1971. Subspecialty, infectious diseases. Board eligible. Partnership, solo, institution. Available July 1978.

Igbal A. Memon, M.D., 720 S. Wolcott, Box 911 KMH, Chicago, Illinois 60612. Dow (Karachi, Pakistan) 1973. Board eligible. Group, institution. Available July 1978.

Leo P. Pajarillo, M.D., 2503 A Atlas Drive, Rome, New York 13440. Cebu Institute (Philippines) 1968. Board eligible. Partnership, solo, institution. Available July 1978.

Pairoj Ruktanonchai, M.D., 27 Blessing Road, Slingerlands, New York 12159. Ramathibodi (Thailand) 1972. Subspecialty, pediatric cardiology. Board eligible. Group, partnership, institution. Available July 1978.

PSYCHIATRY – Mahasukh H. Shah, M.D., 211 S. Millvale Avenue, Apt. #6, Pittsburgh, Pennsylvania 15224. T.N. Medical (India) 1959. Board eligible. Group, partnership. Available July 1978.

R. Shah Jyoti, M.D., 4 Park Avenue, Apt. 5-E, New York, New York 10016. M. P. Shah (India) 1973. Board eligible. Group or institution. Available July 1978.

PULMONARY DISEASES – A. Shanmuganathan, M.D., 394 Tremont Ave., B-1, East Orange 07018. Ceylon 1972. Group, partnership, solo. Available July 1978.

Ming Sung Chiu, M.D., 415 S. Wesley, Apt. 44, Oak Park, Illinois 60302. Taipei (Taiwan) 1969. Subspecialty, internal medicine. Board certified (IM). Group, partnership, solo, institution. Available July 1978.

Mark Pomerans, M.D., Cherry Hospital, Goldsboro, North Carolina 27530. Montevideo (Uruguay) 1964. Subspecialty, psychiatry. Institution. Available April 1978.

Norman H. Braslow, M.D., 8005 Hendrix N.E., Apt. 622, Albuquerque, New Mexico 87109. Jefferson 1973. Subspecialty, internal medicine. Board certified (IM). Group, partnership, institution. Available July 1978.

RADIOLOGY – Devchand V. Patel, M.D., 1100 Parsippany Blvd., Parsippany 07054. B.J. Medical (India) 1962. Diagnostic radiology. Board eligible. Single specialty group. Available July 1978.

Arturo E. Macasinag, M.D., 96 Fleet Pl. Mineola, N.Y. 11501. Santo Tomas (Philippines) 1971. Board eligible. Any type of practice. Available July 1978.

Michael M. Katz, M.D., 6713 Spring Grove Court, Middleton, Wisconsin 53562. University of Pennsylvania 1973. Subspecialty, diagnostic radiology. Board eligible. Group, institution. Available July 1978.

Vijaykumar Hiremath, M.D., 1650-15 Selwyn Avenue, Bronx, New York 10457. Jawaharlal Nehru (India) 1970. Subspecialty, diagnostic radiology. Board eligible. Group, partnership, institution. Available July 1978.

Subramaniam N. Subramaniam, M.D., 141 Palisade Avenue, Apt. 9, Jersey City 07306. Topiwala (Bombay, India) 1963. Board eligible. Group, partnership, institution. Available July 1978.

Shirish L. Parikh, M.D., 185 Palmdale Drive, Apt. #8, Williamsville, New York 14221. LTM Medical (India) 1971. Subspecialty, nuclear medicine. Board eligible. Group, partnership, solo, institution, academic. Available July 1978.

RHEUMATOLOGY – Richard D. Schubert, M.D., 21 Parkman Street, Brookline, Massachusetts 02146. Downstate 1972. Subspecialty, internal medicine. Board certified (IM). Group, partnership, institution. Available June 1978.

Steven L. Feldman, M.D., 2025 E. 53rd Place, Brooklyn, New York 11234. Downstate 1971. Subspecialty, internal medicine. Board certified (IM). Group or partnership. Available July 1978.

SURGERY, GENERAL – Eugene P. Russo, M.D., 532 E. Wimbledon Dr., Charleston, S.C. 29412. Georgetown 1971. Board eligible. Group, partnership, hospital. Available July 1978.

Howard Floch, M.D., 255 E. 23rd St., New York City 10010. Hahnemann 1972. Board eligible. Subspecialty, peripheral vascular with non-cardiac thoracic. Partnership or group involving residency training program. Available July 1978.

Andrew Grimes, M.D., 301 E. 48th St., Apt. 9-B, New York City 10017. Harvard 1972. Partnership, associate, group. Available July 1978.

Arnold W. Berlin, M.D., 305 Zion St., Hartford, Conn. 06106. NYU 1972. Board eligible. Group, partnership, solo. Available July 1978.

Steven R. Hofstetter, M.D., 932 Van Court Ave., Elberon 07740. Upstate Medical 1971. Board eligible. Partnership, single specialty group, multispecialty group. Available June 1978.

Ajmal Sobhan, M.D., 7703 21st Ave., Jackson Heights, N.Y. 11370 Dacca (Pakistan) 1972. Subspecialty, cardiovascular surgery. Board eligible. Partnership, single specialty group, multispecialty group. Available July 1978.

Kamalakar R. Ayyagari, M.D., 555 Mt. Prospect Ave., Apt. 10-G, Newark 07104. Gandhi (India) 1967. Board eligible. Solo, partnership, multispecialty group. Available July 1978.

Carlos J. Jimenez, M.D., 543 Riley St., Buffalo, N.Y. 14208. Barcelona 1971. Board eligible. Multispecialty group, single specialty group, partnership. Available July 1978.

Michael F. Nigro, M.D., 445 E. 68th St., Apt. 5-D, New York City 10021. Cornell 1970. Subspecialty, head and neck surgery. Board eligible. Single specialty group, partnership, multispecialty group. Available July 1978.

Ronald B. Greene, M.D., 4625 Cutlass Dr., Englewood, Ohio 45322. Temple 1972. Subspecialty. orthopedic surgery. Board eligible. Single specialty group, partnership, multispecialty group. Available July 1978.

Jeffrey H. Phillips, M.D., 3450-23 Wayne Ave., Bronx, N.Y. 10467. Einstein 1974. Subspecialty, orthopedic surgery. Board eligible. Single specialty group, partnership, solo. Available July 1978.

Roger A. Evans, M.D., 316 Wilderness Rd., Hampton, Va. 23669. SUNY 1970. Subspecialty, urological surgery. Board eligible. Single specialty group, multispecialty group, partnership. Available July 1978.

Richard Dias, M.D., 1090 Amsterdam Ave., Apt. 13-G, New York City 10025. Bangalore (India) 1969. Subspecialty, urological surgery. Board eligible. Available June 1978.

Alan H. Lieberman, M.D., 706 Schiller Ave., Narberth, Pa. 19072. Pennsylvania 1971. Subspecialty, urological surgery. Board eligible. Single specialty group, partnership, multispecialty group, solo. Available July 1978.

Lawrence J. Yodlowski, M.D., 2532-F Heather Hills Rd., Toledo, Ohio 43614. Medical College of Ohio 1973. Subspecialties, urological surgery and emergency medicine. Single specialty group, multispecialty group, partnership.

Noel T. Hui, M.D., 708 Choctaw Dr., Eglin AFB, Florida 32542. National Defense Medical Center (Taiwan) 1970. Subspecialty, urological surgery. Board eligible. Single specialty group, multispecialty group, solo. Available July 1978.

Richard O. Healy, M.D., 2793 Agricola St., Halifax, B3K, 4E3, Nova Scotia, Canada. University College (Dublin, Ireland) 1970. Subspecialty, urological surgery. Board eligible. Single specialty group, partnership, research. Available January 1978.

T. R. A. Adaniel, M.D., 310 West 56th St., New York City 10019. Santo Tomas (Philippines) 1964. Board certified. Solo or Group. Available.

Manuel S. Dijamco, M.D., 906 Main St., Riverton 08077. Manila Central (Philippines) 1965. Board eligible. Solo or partnership. Available July 1978.

Simon B. Santos, M.D., 8720 Chestnut Circle, Apt. #4, Kansas City, Missouri 64131. Santo Domingo 1970. Board eligible. Group or partnership. Available July 1978.

Michael H. Wimsatt, M.D., 21 Maplewood Terrace, Portsmouth, New Hampshire 03801. Rochester 1971. Board eligible. Group, partnership, or solo. Available July 1978.

Howard F. Floch, M.D., 255 East 23rd Street, New York, New York 10010. Hahnemann 1972. Board eligible. Group, partnership, research. Available July 1978.

Gladstone Errol King, M.D., 3205 Tennessee Street, Pine Bluff, Arkansas 71601. University of West Indies 1966. Board certified. Group, partnership, institution. Available July 1978.

Ashok K. Sahai, M.D., 5058 Broadway, Apt. 10, Cleveland, Ohio 44127. SN Medical College (India) 1968. Subspecialty, general practice. Board eligible. Any type practice. Available July 1978.

Amarkanth R. Saxena, M.D., 903 S. Ashland, Apt. 802B, Chicago, Illinois 60607. Gandhi (India) 1964. Subspecialty, cardiovascular surgery. Board certified. Group, partnership. Available July 1978.

Friedrich Dutka, M.D., 3737 Beaubien Boulevard, Detroit, Michigan 48201. University of Vienna 1965. Subspecialty, thoracic surgery. Board certified. Group, research, institution. Available.

SURGERY, ORTHOPEDIC—Jatinkumar D. Gandhi, M.D., 9601 Ashton Road, Apt. I-9, Philadelphia, Pennsylvania 19114. M.P. Shah (India) 1967. Board eligible. Group, partnership, research. Available July 1978.

SURGERY, UROLOGICAL—Bashiruddin N. Shaikh, M.D., 66 Pacific Avenue, Apt. 614, Toronto M6P 2P4, Ontario, Canada. B. J. Medical (India) 1961. Board eligible. Group, partnership, research, solo. Available April 1978.

Subbarao V. Cherukuri, M.D., 4649 Walford Road, Apt. 20, Warrensville Heights, Ohio 44128. Andhra (India) 1966. Board eligible. Group or partnership. Available July 1978.

Rene P. Grabato, M.D., 94 Amity Street, Apt. 3-F, Brooklyn, New York 11201. Santo Tomas (Philippines) 1970. Board eligible. Group, partnership, solo. Available July 1978.

Preston G. Packer, M.D., 23-09 215th Street, Bayside, New York 11360. Chicago Medical 1970. Board eligible. Group or partnership. Available July 1978.

David I. Millstein, M.D., 523 Nassau Street, Baltimore, Maryland 21208. Pittsburgh 1970. Board eligible. Group or partnership. Available July 1978.

Narendra K. Bansal, M.D., 4755 Village Lane, Toledo, Ohio 43614. S.N. Medical College (India) 1967. Board eligible. Group or partnership. Available July 1978.

UROLOGY—Modesto S. Rivera, III, M.D., 2529 Flowering Tree Lane, Gambrills, Maryland 21054. Philippines 1971. Board eligible. Group or partnership. Available July 1978.

Ned B. Stein, M.D., 12000 Fairhill Road, Cleveland, Ohio 44120. Bowman-Gray 1973. Board eligible. Group or partnership. Available July 1978.

Baikunth N. Bhargava, M.D., 353 East 17th Street, Apt. 21-C, New York, New York 10003. S.M.S. Medical College (India) 1963. Group, partnership. Available July 1978.

Malcolm Schwartz, M.D., 20 Waterside Plaza, Apt. 24-F, New York, New York 10010. CMDNJ 1972. Board eligible. Group, partnership, solo. Available June 1978.

Housing Application

212th Annual Meeting

The Medical Society of New Jersey

May 6–9, 1978

	DAILY RATES		
	Single	Twin	Suites
Holiday Inn	$30	$36	Rates quoted upon
(MSNJ Headquarters)	38	44	request
	46	52	
Howard Johnson's	$30	$36	Rates quoted upon
(Auxiliary Headquarters)	38	44	request
	46	52	

If room is not available at rate requested, next available rate will be assigned

Mail this application directly to the Atlantic City Convention Bureau
16 Central Pier
Atlantic City, N. J. 08401

Please list 1st and 2nd choice; confirmation will come directly from hotel.

1st Choice _____ 2nd Choice _____

Accommodations desired: ☐ Single ☐ Twin ☐ Suite Parlor & 1 Bedroom ☐ Suite Parlor & 2 Bedrooms

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____

Will arrive _____ (DATE) Time _____ Will depart _____ (DATE) Time _____

☐ Check if Official Delegate _____ County

Personal Item

Morris Harold Saffron, M.D.
Archivist—Historian

Morris Saffron, a dermatologist by profession, was born in Passaic where he continues to practice. While attending Columbia University, young Saffron was torn between journalism and medicine. To the good fortune of all, he effectively has combined both pursuits. After receiving his medical degree from the University of Maryland, Morris studied history at Columbia while practicing his medical specialty. He was awarded a master's degree in 1949 and a coveted Ph.D. in history in 1968 by that University.

Dr. Saffron served in the Army from 1941 to 1945. His travels throughout the world, his interest in archaeology, book collecting, and museums uniquely have qualified him for his avocation.

In the literary field, Dr. Saffron has been very productive. *Surgeon to Washington* was preceded by two other books, a biography of Samuel Clossy, the first professor of anatomy at King's College Medical School (Columbia University College of Physicians and Surgeons) and *Maurus of Salerno,* a description of the life of that 12th century physician. He also has written numerous articles and contributions to encyclopedias.

Morris Saffron is Visiting Professor of Medical History at the College of Medicine and Dentistry of New Jersey. He is a past-president of the Academy of Medicine of New Jersey, the New Jersey Academy of Science, and the New Jersey Dermatological Society, and is a trustee of the New Jersey Historical Society.

Among his most treasured honors are the Columbia University Presidential Citation for Distinction received in 1974, and, most recently, the "Classmate of the Year" award for which he was chosen by his Columbia College Class of 1925.

ANNOUNCEMENTS

Allergists' Meeting in Las Vegas

The 34th Annual Congress of the American College of Allergists will be held April 1 to 6 at the Las Vegas Hilton. The five-and-a-half-day conference will focus on a comprehensive review of clinical immunologic and allergic diseases relevant to the needs of the physician in practice. Participation by registrants will be encouraged. The fee is $75 for members of the College and $190 for non-members; there is no charge for residents, interns, nurses, and technicians from teaching hospitals who present letters from their department heads. The AMA will award 30 credit hours in Category I of the Physician's Recognition Award. For additional information, please communicate with Frances P. White, Executive Secretary and Treasurer, American College of Allergists, 2141 Fourteenth Street, Boulder, Colorado 80302.

Contemporary Clinical Neurology

From July 6 to 9 at Hilton Head Island, South Carolina, the Department of Neurology of Vanderbilt University School of Medicine will conduct a graduate course on contemporary clinical neurology. Scientific sessions will be held each morning from 8:30 a.m. to 1 p.m.. Topics include cerebrovascular disease, viral and demyelinating diseases, movement disorders, and neuromuscular disorders. Sixteen credit hours will be awarded in Category I of the AMA Physician's Recognition Award. Registration fee is $200. For information and registration form, please communicate with Vanderbilt Continuing Education, 305 Medical Arts Building, Nashville, Tennessee 37212.

MEETINGS OF MEDICAL INTEREST

This listing is compiled through the cooperation of the Committee on Medical Education of The Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s), indicated by italics—last line of each item.

Feb.

15 **Cardiology Conferences**
4-6 p.m.—Rutgers Medical School, Piscataway
(*CMDNJ and AMNJ*)

15 **Advances in Medicine**
22 9:30-11 a.m.—Bergen Pines Hospital, Paramus
(*Bergen Pines County Hospital and AMNJ*)

15 **Dilemmas in Mental Health Planning**
1-2:30 p.m.—Community Health Center (CMDNJ) Newark
(*CMDNJ and AMNJ*)

15 **Dermatologic Manifestations of Systemic Diseases**
22 **Infection in the Compromised Host**
9-11 a.m.—Riverview Hospital, Red Bank
(*Riverview Hospital, AMNJ and AAFP*)

15 **Psychiatry**
1-3 p.m.—Ancora Psychiatric Hospital, Hammonton
(*Ancora Psychiatric Hospital and AMNJ*)

15 **New Aspects of Echocardiography**
22 **High Density Lipoproteins**
10-11:30 a.m.—St. Michael's Medical Center, Newark
(*St. Michael's Medical Center and AMNJ*)

15 **Medical Humanism—Hospital Ethics**
1 p.m.—Trenton Psychiatric Hospital
(*AMNJ and AAFP*)

15 **Update on Clinical Psychopharmacology**
1-2 p.m.—VA Hospital, Lyons
(*VA Hospital, Lyons and AMNJ*)

16 **Psychiatric Emergencies**
9-10 p.m.—Woodbury Country Club
(*Gloucester County Medical Society and AMNJ*)

16 **Appropriate Workup for the Headache Patient**
5-6:30 p.m.—Somerset Hospital, Somerville
(*Somerset Hospital and AMNJ*)

16 **Problems in Biliary Tract Surgery**
6:15 p.m.—Bridgeton Hospital
(*Bridgeton Hospital*)

16 **Problems and Uses of Enteral and Intravenous Hyperalimentation**
23 **Pre and Post-operative Evaluation of the Surgical Patient**
3:30-4:30 p.m.—Burlington County Memorial Hospital
(*Burlington County Memorial Hospital and Hahnemann Medical College and Hospital*)

16 **Current Concepts in Modern Biology**
23 4-6 p.m.—Institute for Medical Research, Camden
(*Institute for Medical Research and AMNJ*)

16 **Pediatric Allergy Course**
23 11 a.m.-12 noon—Children's Hospital of Newark
(*Children's Hospital of Newark and AMNJ*)

16 **The Doctor's Time and How to Schedule It**
9-11:30 a.m. and 3:30 p.m.—Ramada Inn, Rochelle Park
(*Bergen County Medical Society, AMA and AMNJ*)

17 **Diagnosis and Management of Arthritis in Children**
8:15-10:30 a.m.—Overlook Hospital, Summit
(*Overlook Hospital and AMNJ*)

17 **Laboratory Interpretations**
5 p.m.—Holiday Inn, Deepwater
(*AMNJ and AAFP*)

17 **Endocrinology**
12 noon—Freehold Area Hospital
(*AMNJ and AAFP*)

20 **Current Surgical Techniques of Breast Cancer**
12 noon—Hospital Center at Orange
(*AMNJ and AAFP*)

20- **Endocrinology Symposium**
24 Nassau, Bahamas
(*CMDNJ, AMNJ and VA Hospital, East Orange*)

20 **Neuroscience Conferences**
27 11:30 a.m.-12:30 p.m.—Bergen Pines County Hospital
Paramus
(*Bergen Pines County Hospital and AMNJ*)

21 **Cerebrovascular Disease**
8-9 a.m.—Garden State Community Hospital
(*Garden State Community Hospital and AMNJ*)

21 **Northern Regional Chest Conferences**
7:30-9:30 p.m.—St. Barnabas Hospital, Livingston
(*New Jersey Thoracic Society and AMNJ*)

21 **Cancer of the Colon and Ovary**
12 noon—St. Mary's Hospital, Orange
(*AMNJ and AAFP*)

22 **Biofeedback**
1-3 p.m.—Christ Hospital, Jersey City
(*Christ Hospital and AMNJ*)

24 **Carcinoma of the Breast**
12:30 p.m.—Hamilton Hospital, Trenton
(*AMNJ and AAFP*)

11 **CME Program**
25 8-10 a.m.—Newcomb Hospital, Vineland
(*University of Pennsylvania School of Medicine and AAFP*)

28 **Drug Addiction**
8 p.m.—Warren Hospital, Phillipsburg
(*AMNJ and AAFP*)

28 **Nephrology**
8-9 p.m.—Warren Hospital, Phillipsburg
(*Warren Hospital and AMNJ*)

Mar.

1 **Proper Use of Blood Gases**
11:30 a.m.—Rahway Hospital
(*AMNJ and AAFP*)

1 **Fiberoptic Bronchoscopy**
1 p.m.—Christ Hospital, Jersey City
(*AMNJ and AAFP*)

1 **Lectures in Obstetrics/Gynecology**
6-10 p.m.—141 S. Harrison St., E. Orange
(*New Jersey Medical School and AMNJ*)

1 **Cardiac Rehabilitation: A Three-Year Experience**
10-11:30 a.m.—St. Michael's Medical Center, Newark
(*St. Michael's Medical Center and AMNJ*)

1 **Current Concepts in Hypertension**
1-2 p.m.—VA Hospital, Lyons
(*VA Hospital, Lyons, and AMNJ*)

1 **Advances in Medicine**
8 9:30-11 a.m.—Bergen Pines County Hospital, Paramus
15 (*Bergen Pines County Hospital and AMNJ*)
22
29

1 **Cardiology Conferences**
15 4-6 p.m.—Rutgers Medical School, Piscataway
(*CMDNJ and AMNJ*)

1 **Courses for Psychiatrists**
8 8-10 p.m.—Hackensack Hospital
15 (*NJ Psychoanalytic Society and AMNJ*)
22
29

1 **Immunology in Clinical Medicine**
8 **Controversies in Breast Cancer**
15 **Acupuncture**
9-11 a.m.—Riverview Hospital, Red Bank
(*Riverview Hospital, AMNJ and AAFP*)

1 **Psychiatry**
15 1-3 p.m.—Ancora Psychiatric Hospital
20 (*Ancora Psychiatric Hospital and AMNJ*)
29

1 **Research in Schizophrenia**
1-2:30 p.m.—St. Joseph's Hospital and Medical Center
(*CMDNJ and AMNJ*)

2 **Common Arthritides**
9 **Vascular Diseases**
16 **Cardiac Arrhythmias**
23 **Hemorrhagic Disease**
30 **Thyroid Disease**
3:30-4:30 p.m.—Burlington County Memorial Hospital
(*Burlington County Memorial Hospital and Hahnemann Medical College and Hospital*)

2 **Psychiatric Study**
8-10 p.m.—312 Harding Drive, South Orange
(*Group for Advanced Psychiatric Study and AMNJ*)

2 **Immunology**
11 a.m.—Greystone Park Psychiatric Hospital
(*AMNJ and AAFP*)

2 **Infectious Disease Course**
8:30-9:30 a.m.—Somerset Hospital, Somerville
(*Somerset Hospital and AAFP*)

2 **Pediatric Allergy Course**
9 11 a.m.-12 noon—Children's Hospital of Newark
16 (*Children's Hospital of Newark and AMNJ*)
23

2 **Current Concepts in Modern Biology**
9 4-6 p.m.—Institute for Medical Research, Camden
16 (*Institute for Medical Research and AMNJ*)
23

3 **Clinical Immunology**
8:30 a.m.—United Hospitals of Newark
(*AMNJ and AAFP*)

3 **Arrhythmias, EKG Diagnosis, and Treatment**
12 noon-1 p.m.—St. Mary's Hospital, Orange
(*St. Mary's Hospital and AMNJ*)

3 **Psychiatric Lecture Series**
10 1:30-5 p.m.—Trenton Psychiatric Hospital
17 (*Trenton Psychiatric Hospital and AMNJ*)

6 **Neuroscience Conferences**
13 11:30 a.m.-12:30 p.m.—Bergen Pines County Hospital
20 Paramus
27 (*Bergen Pines County Hospital and AMNJ*)

6 **Obstructive Lung Disease**
8 p.m.—Community Memorial Hospital, Toms River
(*AMNJ and AAFP*)

7 **Surgical Management of Cushing's Syndrome**
5-6 p.m.—Rutgers Medical School, Piscataway
(*Rutgers Medical School and Academy of Medicine*)

New Tests in Laboratory Medicine
7 8-9 a.m.
14 12 noon-1 p.m.
21 8-9 a.m.—Garden State Community Hosp., Marlton
(*Garden State Community Hospital and AMNJ*)

7 **Three Faces of Femininity**
8-10 p.m. — Marriott Hotel, Saddle Brook
(*New Jersey Council of Child and Adolescent Psychiatry and AMNJ*)

8 **Joint Conference New Jersey Thoracic Society**
9:30 a.m.-4 p.m. — Coachman Inn, Cranford
(*New Jersey Thoracic Society, New Jersey Chapter, American College of Surgeons, and AMNJ*)

8 **Psychosocial Factors in Heart Disease**
1-2:30 p.m. — VA Hospital, Lyons
(*VA Hospital and AMNJ*)

8 **1977 Update on Traditional and New Venereal Disease**
1-3 p.m. — Christ Hospital, Jersey City
(*Christ Hospital, AMNJ, and AAFP*)

11-12 **Postgraduate Anesthesia Seminar**
9 a.m. — Hyatt House, Cherry Hill
(*New Jersey State Society of Anesthesiologists and AMNJ*)

11 25 **CME Program**
8-10 a.m. — Newcomb Hospital, Vineland
(*University of Pennsylvania School of Medicine and AAFP*)

14 **Cancer in New Jersey**
8 p.m. — Paul Kimball Hospital, Lakewood
(*AMNJ and AAFP*)

14 **Medical Care in Emergency Department**
9 p.m. — Bayonne Hospital
(*AMNJ and AAFP*)

14 **Medical/Legal Aspects of Medicine and Surgery**
12 noon — Hospital Center at Orange
(*AMNJ and AAFP*)

14 **Dermatologic Surgery**
8-10 p.m. — Schering Corporation, Kenilworth
(*New Jersey Dermatological Society and AMNJ*)

15 **Hypertension**
8:30 a.m.-4:30 p.m. — Sheraton Inn, Newark Airport
(*Pfizer Pharmaceutical, St. Barnabas Medical Center, and AMNJ*)

15 **Special Problems in Neurology**
7-10 p.m. — VA Hospital, East Orange
(*VA Hospital and AMNJ*)

15 **Diagnosis and Management of the Short Child**
8:30-10 p.m. — 1257 Kensington Road, Teaneck
(*Bergen Co. Chapter, American Medical Women's Assn. and AMNJ*)

15 **Proper Use of Antibiotics**
1 p.m. — Trenton Psychiatric Hospital
(*AMNJ and AAFP*)

15 **Drug Interactions**
1-3 p.m. — Christ Hospital, Jersey City
(*Christ Hospital, AMNJ and AAFP*)

15 **Sleep Disorders in Man**
1-2:30 p.m. — Community Health Center (CMDNJ) Newark
(*CMDNJ and AMNJ*)

15 **Vasodilators in the Treatment of Cardiovascular Disease**
10 a.m.-2:30 p.m. — Sheraton Hotel, Newark Airport
(*Pfizer Laboratories and AMNJ*)

16 **Sexual Counseling**
6:15 p.m. — Bridgeton Hospital
(*Bridgeton Hospital*)

16 **Emotional Management in Myocardial Infarction**
5-6:30 p.m. — Somerset Hospital, Somerville
(*Somerset Hospital and AAFP*)

17 **Brief Psychotherapy of Sexual Disorders**
8:30-10:30 p.m. — Sheraton Hotel, Hackensack
(*New Jersey Psychoanalytic Society and AMNJ*)

17 **Childhood Malignancies**
8:15-10:30 a.m. — Overlook Hospital, Summit
(*Overlook Hospital and AMNJ*)

17 **The Violent Patient**
5 p.m. — Holiday Inn-Deepwater
(*AMNJ and AAFP*)

17 **Diagnosis of Anemic Patient**
12 noon — Freehold Area Hospital
(*AMNJ and AAFP*)

Edward Waters Gynecologic Conference
17 2-7 p.m.
18 8:30 a.m.-7 p.m.
19 9 a.m.-12:30 p.m.
} Resorts International Hotel, Atlantic City
(*CMDNJ, NJ Medical School and AMNJ*)

18 **Emergency '78 — Sports Medicine and Sports Emergencies**
Ninth Annual Meeting — Valley Hospital, Ridgewood
(*Valley Hospital*)

18 **Psychosomatic Syndromes in Women and Girls**
9 a.m.-1:30 p.m. — Mountainside Hospital, Montclair
(*New Jersey Medical Women's Association and AMNJ*)

21 **Scanning**
12 noon — St. Mary's Hospital, Orange
(*AMNJ and AAFP*)

21 **Congestive Heart Failure**
8:30 p.m. — Marriott Motor Inn Saddlebrook
(*Fair Lawn Memorial Hospital, AMNJ and AAFP*)

21 **Northern Regional Chest Conferences**
7:30-9:30 p.m. — St. Joseph's Hospital, Paterson
(*New Jersey Thoracic Society and AMNJ*)

24 **Bleeding Disorders**
12:30 p.m. — Hamilton Hospital, Trenton
(*AMNJ and AAFP*)

28 Hepatitis
8 p.m.—Warren Hospital, Phillipsburg
(*AMNJ and AAFP*)

28 Less Than Radical Surgery for Potentially Curable Breast Cancer
8-10 p.m.—Englewood Men's Club, Englewood
(*Englewood Surgical Society and AMNJ*)

29 Cancer Symposium
9 a.m.-5 p.m.—Englewood Hospital
(*Englewood Hospital and AMNJ*)

29 Psychopharmacology in Geriatric Psychiatry
1:30-3 p.m.—Trenton Psychiatric Hospital
(*Trenton Psychiatric Hospital and AMNJ*)

29 Use of Psychopharmaceuticals
1-2 p.m.—VA Hospital, Lyons
(*VA Hospital and AMNJ*)

29 Cerebral Vascular Disease
3 p.m.—Ancora Psychiatric Hospital, Hammonton
(*AMNJ and AAFP*)

29 Blood Gases: Revisited
1-3 p.m.—Christ Hospital, Jersey City
(*Christ Hospital and AMNJ*)

Apr.

3 Neuroscience Conferences
10 11:30 a.m.-12:30 p.m.—Bergen Pines County Hospital,
17 Paramus
24 (*Bergen Pines County Hospital and AMNJ*)

3 Suicidology
8 p.m.—Community Memorial Hospital, Toms River
(*AMNJ and AAFP*)

4 New Developments in Scanning
11 a.m.—Greystone Park Psychiatric Hospital
(*AMNJ and AAFP*)

5 Advances in Medicine
12 9:30-11 a.m.—Bergen Pines County Hospital, Paramus
19 (*Bergen Pines County Hospital and AMNJ*)
26

5 Cardiology Conferences
19 4-6 p.m.—Rutgers Medical School, Piscataway
(*CMDNJ and AMNJ*)

5 Outpatient Management of Tuberculosis
11:30 a.m.—Rahway Hospital
(*AMNJ and AAFP*)

5 Suicidology
1 p.m.—Christ Hospital, Jersey City
(*AMNJ and AAFP*)

5 Courses for Psychiatrists
12 8-10 p.m.—Hackensack Hospital
19 (*NJ Psychoanalytic Society and AMNJ*)
26

5 Lectures in Obstetrics/Gynecology
6-10 p.m.—141 S. Harrison St., E. Orange
(*New Jersey Medical School and AMNJ*)

5 Anesthesia in Ophthalmic Surgery
8 p.m.—St. Barnabas Medical Center
(*St. Barnabas Medical Center and AMNJ*)

5 Drug Abuse in America
1-2:30 p.m.—Community Health Center (CMDNJ)
Newark
(*CMDNJ and AMNJ*)

6 Psychiatric Study
8-10 p.m.—312 Harding Drive, South Orange
(*Group for Advanced Psychiatric Study and AMNJ*)

6 Current Concepts in Modern Biology
4-6 p.m.—Institute for Medical Research, Camden
(*Institute for Medical Research and AMNJ*)

6 Care of the Aged Arthritic Patient
2-4 p.m.—Daughters of Miriam Center, Clifton
(*Daughters of Miriam Center for the Aged, AMNJ and AAFP*)

6 Current Methods of Estrogen Therapy
13 Medical Consequences of Chronic Spasm
20 Radiologic Approach to Jaundice
27 Update on Spine Problems
3:30-4:30 p.m.—Burlington Co. Mem. Hosp.
(*Burlington County Memorial Hospital and Hahnemann Medical College and Hospital*)

6 Pediatric Allergy Course
13 11a.m.-12 noon—Children's Hospital of Newark
20 (*Children's Hospital of Newark and AMNJ*)
27

6 Infectious Disease Course
8:30-9:30 a.m.—Somerset Hospital, Somerville
(*Somerset Hospital and AMNJ*)

7 Infectious Diseases
8:30 a.m.—United Hospitals of Newark
(*AMNJ and AAFP*)

7 Psychiatric Lecture Series
14 1:30-5 p.m.—Trenton Psychiatric Hospital
21 (*Trenton Psychiatric Hospital and AMNJ*)
28

7 Arrhythmias, EKG Diagnosis and Treatment
12 Noon-1 p.m.—St. Mary's Hospital, Orange
(*St. Mary's Hospital and AMNJ*)

8 Orthopedic Symposium
8 a.m.-4:30 p.m.—Rutgers Medical School, Piscataway
(*Rutgers Medical School, and AMNJ*)

8 CME Program
22 8-10 a.m.—Newcomb Hospital, Vineland
(*University of Pennsylvania School of Medicine and AAFP*)

11 Fluid and Electrolyte Balance
12 noon—Hospital Center at Orange
(*AMNJ and AAFP*)

11 Connective Tissue Diseases Including Vasculitis
8-10 p.m.—Schering Corporation, Kenilworth
(*New Jersey Dermatological Society and AMNJ*)

11 **Complex Problems of the Biliary Tract**
5-6 p.m. – Rutgers Medical School, Piscataway
(*Rutgers Medical School, and AMNJ*)

12 **Proper Use of Blood Gases**
1:30 p.m. – John E. Runnells Hospital
Berkeley Heights
(*AMNJ and AAFP*)

12 **Psychiatry**
17 1-3 p.m. – Ancora Psychiatric Hospital, Hammonton
19 (*Ancora Psychiatric Hospital and AMNJ*)
26

12 **Allergy**
1-3 p.m. – Christ Hospital, Jersey City
(*Christ Hospital and AAFP*)

18 **Northern Regional Chest Conferences**
7:30-9:30 p.m. – Location to be announced
(*New Jersey Thoracic Society and AMNJ*)

18 **Intra-Aortic Balloon Pumping**
12 noon – St. Mary's Hospital, Orange
(*AMNJ and AAFP*)

19 **Cognitive Styles in Personal and Cultural Adaptations**
1-2:30 p.m. – St. Michael's Medical Center, Newark
(*CMDNJ and AMNJ*)

19 **The Psychodynamics of Dental Practice**
9 a.m.-4 p.m. – New Jersey Dental School, Newark
(*AMNJ and CMDNJ*)

19 **Special Problems in Neurology**
7-10 p.m. – VA Hospital, East Orange
(*VA Hospital and AMNJ*)

20 **Nevi and Melanoma**
6:15 p.m. – Bridgeton Hospital
(*Bridgeton Hospital*)

20 **Hypertension – Old and New Concepts**
5-6:30 p.m. – Somerset Hospital, Somerville
(*Somerset Hospital and AMNJ*)

21 **Management of Hepatitis**
12 noon – Freehold Area Hospital
(*AMNJ and AAFP*)

21 **Infant of the Diabetic Mother**
8:15-10:30 a.m. – Overlook Hospital, Summit
(*Overlook Hospital and AMNJ*)

22 **Seminar in Anesthesiology**
9 a.m.-3 p.m. – Saint Barnabas Medical Center
Livingston
(*Educational Council for Anesthesiology of NJ and AMNJ*)

25 **Medical/Legal Aspects of Medicine and Surgery**
8 p.m. – Warren Hospital, Phillipsburg
(*AMNJ and AAFP*)

26 **General Problems in Psychiatry**
1:15-2:45 p.m. – Marlboro Psychiatric Hospital
(*Marlboro Psychiatric Hospital and AMNJ*)

26 **Exercise and the Heart**
9:30 a.m.-4 p.m. – Holiday Inn, Paramus
(*American Heart Association, Bergen County Chapter, Bergen Pines County Hospital, and AMNJ*)

28 **Surgical Management of Inflammatory Bowel Disease**
12:30 p.m. – Hamilton Hospital, Trenton
(*AMNJ and AAFP*)

May

1 **Neuroscience Conferences**
8 11:30 a.m.-12:30 p.m. – Bergen Pines County Hospital
15 Paramus
22 (*Bergen Pines County Hospital and AMNJ*)

1 **Arthritis**
8 p.m. – Community Memorial Hospital, Toms River
(*AMNJ and AAFP*)

1 **Psychiatry**
17 1-3 p.m. – Ancora Psychiatric Hospital, Hammonton
30 (*Ancora Psychiatric Hospital and AMNJ*)

2 **Thyroid Disease**
11 a.m. – Greystone Park Psychiatric Hospital
(*AMNJ and AAFP*)

2 **Feasibility of Breast Cancer Screening**
5-6 p.m. – Rutgers Medical School, Piscataway
(*Rutgers Medical School and AMNJ*)

3 **Lectures in Obstetrics/Gynecology**
6-10 p.m. – 141 S. Harrison St., E. Orange
(*New Jersey Medical School and AMNJ*)

3 **Advances in Medicine**
10 9:30-11 a.m. – Bergen Pines County Hospital
17 Paramus
24 (*Bergen Pines County Hospital and AMNJ*)

3 **Cardiology Conferences**
17 4-6 p.m. – Rutgers Medical School
(*CMDNJ and AMNJ*)

3 **Medical Humanism – Hospital Ethics**
11:30 a.m. – Rahway Hospital
(*AMNJ and AAFP*)

3 **Courses for Psychiatrists**
8-10 p.m. – Hackensack Hospital
(*NJ Psychoanalytic Society and AMNJ*)

3 **Treatment of Depression**
17 **Contemporary Issues of Psychiatric Residency Training**
1-2:30 p.m. – Community Health Center, (CMDNJ)
Newark
(*CMDNJ and AMNJ*)

4 **Schizophrenia**
11 **The Impact of Genetics on Medical Practice**
18 **New Joints for Old**
25 **Impotence**
3:30-4:30 p.m. – Burlington County Memorial
Hospital, Mount Holly
(*Burlington County Memorial Hospital and Hahnemann Medical College and Hospital*)

4 **Psychiatric Study**
8-10 p.m. – 312 Harding Drive, South Orange
(*Group for Advanced Psychiatric Study and AMNJ*)

4 **Pediatric Allergy Course**
11 11 a.m.-12 noon – Children's Hospital of Newark
18 (*Children's Hospital of Newark and AMNJ*)
25

4 **Infectious Diseases Course**
8:30-9:30 a.m. – Somerset Hospital, Somerville
(*Somerset Hospital of Newark and AMNJ*)

5 **Cerebral Vascular Disease**
8:30 a.m. – United Hospitals of Newark
(*AMNJ and AAFP*)

5 **New Advances in Diagnostic Ultrasound of the Abdomen**
12 noon-1 p.m. – St. Mary's Hospital, Orange
(*St. Mary's Hospital and AMNJ*)

6- **MSNJ Annual Meeting**
9 Holiday Inn-Howard Johnson's Regency, Atlantic City

9 **Fluid and Electrolyte Imbalance**
9 p.m. – Bayonne Hospital
(*AMNJ and AAFP*)

10 **Arthritis**
1:30 p.m. – John E. Runnells Hospital, Berkeley Heights
(*AMNJ and AAFP*)

10 **Annual Awards Dinner – AMNJ**
6 p.m. – Chanticler, Millburn
(*Academy of Medicine of New Jersey*)

13 **CME Program**
27 8-10 a.m. – Newcomb Hospital, Vineland
(*University of Pennsylvania School of Medicine and AAFP*)

15 **Endotoxic/Hemorrhagic Shock**
12 noon – Hospital Center at Orange
(*AMNJ and AAFP*)

16 **Kidney Stones**
12 noon – St. Mary's Hospital, Orange
(*AMNJ and AAFP*)

17 **Special Problems in Neurology**
7-10 p.m. – VA Hospital, East Orange
(*VA Hospital and AMNJ*)

18 **Advances in Pediatrics**
6:15 p.m. – Bridgeton Hospital
(*Bridgeton Hospital*)

18 **Antithrombotic Therapy**
5-6:30 p.m. – Somerset Hospital, Somerville
(*Somerset Hospital and AMNJ*)

19 **Chronic Renal Failure**
12 noon – Freehold Area Hospital
(*AMNJ and AAFP*)

19 **Immunization: Prospects for New Vaccines**
8:15-10:30 a.m. – Overlook Hospital, Summit
(*Overlook Hospital and AMNJ*)

20 **Immunology in Obstetrics and Gynecology**
9 a.m.-5 p.m. – Governor Morris Inn, Morristown
(*New Jersey Obstetrical and Gynecological Society and AMNJ*)

23 **Common Topical Agents in Dermatological Practice**
8:30-10 p.m. – 645 Cambridge Road, Paramus
(*Bergen Co. Chapter, American Medical Women's Association and AMNJ*)

23 **Cerebral Vascular Disease**
8 p.m. – Warren Hospital, Phillipsburg
(*AMNJ and AAFP*)

24 **Murder: Evaluation, Classification and Prediction**
3:15-4:45 p.m. – Fair Oaks Hospital, Summit
(*Fair Oaks Hospital and AMNJ*)

26 **Ophthalmologic Manifestations in Systemic Disease**
12:30 p.m. – Hamilton Hospital, Trenton
(*AMNJ and AAFP*)

31 **Cardiac Arrhythmias**
3 p.m. – Ancora Psychiatric Hospital, Hammonton
(*AMNJ and AAFP*)

June

1 **Infectious Disease Course**
8:30-9:30 a.m. – Somerset Hospital, Somerville
(*Somerset Hospital and AAFP*)

1 **Current Radiation Therapy**
11 a.m. – Greystone Park Psychiatric Hospital
(*AMNJ and AAFP*)

2 **Lipid Metabolism**
8:30 a.m. – United Hospitals of Newark
(*AMNJ and AAFP*)

5 **Neuroscience Conferences**
12 11:30 a.m.-12:30 p.m. – Bergen Pines County Hospital
19 Paramus
26 (*Bergen Pines County Hospital and AMNJ*)

5 **Thyroid Diseases**
8 p.m. – Community Memorial Hospital, Toms River
(*AMNJ and AAFP*)

6 **Esophageal Emergencies**
5-6 p.m. – Rutgers Medical School, Piscataway
(*Rutgers Medical School and AMNJ*)

7 **Advances in Medicine**
14 9:30-11 a.m. – Bergen Pines County Hospital, Paramus
(*Bergen Pines County Hospital and AMNJ*)

7 **Cardiology Conferences**
21 4-6 p.m. – Rutgers Medical School, Piscataway
(*CMDNJ and AMNJ*)

7 **Urinary Tract Infection**
14 **Immunization Practices – An Update**
1-3 p.m. – Christ Hospital, Jersey City
(*Christ Hospital and AMNJ*)

14 **Current Biological Concepts in Psychiatry**
1-2:30 p.m. – Community Health Center (CMDNJ) Newark
(*CMDNJ and AMNJ*)

7 **Psychiatry**
14 1-3 p.m. – Ancora Psychiatric Hospital, Hammonton
(*Ancora Psychiatric Hospital and AMNJ*)

10 **Differential Diagnosis – The Wheezing Patient**
24 **The Leukemias**
8-10 a.m. – Newcomb Hospital, Vineland
(*Newcomb Hospital and University of Pennsylvania Hospital*)

15 **Beta-Adrenergic Blocking Agent in Cardiovascular Disease**
5-6:30 p.m. – Somerset Hospital, Somerville
(*Somerset Hospital and AMNJ*)

16 **Sports Medicine**
12 noon – Freehold Area Hospital
(*AMNJ and AAFP*)

16 **Neurological Diagnosis by Inspection**
8:15-10:30 a.m. – Overlook Hospital, Summit
(*Overlook Hospital and AMNJ*)

20 **Northern Regional Chest Conferences**
7:30-9:30 p.m. – Beth Israel Hospital, Newark
(*New Jersey Thoracic Society and AMNJ*)

20 **Acute and Chronic Leukemia**
12 noon – St. Mary's Hospital, Orange
(*AMNJ and AAFP*)

20 **Shock**
8:30 p.m. – Marriott Motor Inn
Saddle Brook
(*Fair Lawn Memorial Hospital, AMNJ and AAFP*)

21 **Special Problems in Neurology**
7-10 p.m. – VA Hospital, East Orange
(*VA Hospital and AMNJ*)

27 **Current Radiation Therapy**
8 p.m. – Warren Hospital, Phillipsburg
(*AMNJ and AAFP*)

OBITUARIES

Dr. M. Weinstock Bergman

One of Essex County's senior members, Meyer Weinstock Bergman, M.D., of Irvington, died on December 13, 1977. A native of New York City, Dr. Bergman earned his medical degree from the Medical College of Emory University, class of 1921, and pursued a career in neuropsychiatry in industrial medicine. He had been attending neuropsychiatrist at the Newark Beth Israel Medical Center and served several years as chief of that department. Dr. Bergman was a member of the American Psychiatric Association and of the Society for Advancement of Psychotherapy, and was a Fellow of the American Geriatrics Society. In 1971 he received MSNJ's Golden Merit Award for fifty years in medical practice. Dr. Bergman was 82 years old at the time of his death.

Dr. Gustave A. Braun

Word has been received of the death on November 29, 1977 of Gustave A. Braun, M.D., an emeritus member from the Essex County Medical Society. A native of New Jersey, Dr. Braun was graduated from Columbia University's College of Physicians and Surgeons in 1917 and took graduate work in obstetrics and gynecology, becoming board certified in that field. He was a Fellow of the American College of Surgeons and a member of the prestigious New Jersey Society of Surgeons and the New Jersey Obstetrical and Gynecological Society. He had been chief of his department at St. Michael's Medical Center in Newark. He was a 1967 recipient of MSNJ's Golden Merit Award for fifty years of medical practice. Dr. Braun was 86 years old at the time of his death and his body was accepted by Rutgers Medical School in accordance with his instructions.

Dr. Adolfo G. Bulle

One of Camden County's recently elected members, Adolfo G. Bulle, M.D., of Lakeland, died on October 19. Born in Havana, Cuba in 1910, Dr. Bulle earned his medical degree from the University of Havana School of Medicine in 1938, and pursued a residency in dermatology at his alma mater. He established a private dermatological practice in Havana and later

in Oriente and accepted appointment on the faculty at the University of Havana School of Medicine. In 1966 he gave up his practice and emigrated to Spain, and in 1968 came to the United States and accepted an appointment as resident physician at the Preakness Hospital in Paterson and more recently at the Camden County Psychiatric Hospital in Lakeland. Dr. Bulle was a member of the Cuban Society of Dermatology and the International Society of Tropical Dermatology.

Dr. Peter Cordasco

Peter Cordasco, M.D., a life-long resident of Newark, died on December 4 at Clara Maass Memorial Hospital in Belleville. A graduate of Syracuse University School of Medicine, class of 1930, Dr. Cordasco pursued a career in orthopedic surgery, becoming board certified in that specialty. He had been on the staff at Columbus and St. Michael's Hospitals in Newark and Clara Maass Hospital in Belleville. He was a Fellow of the American Association of Orthopedic Surgeons. Dr. Cordasco was 71 years old at the time of his death.

Dr. Laura B. Harris

On November 22, Laura B. Harris, M.D., a member of our Hudson County component, died suddenly at her home. A native of Philadelphia, Dr. Harris was graduated from Women's Medical College of Pennsylvania (now Pennsylvania Medical College) in 1943. She pursued graduate training at Mercy-Douglass Hospital in Philadelphia and Harlem Hospital in New York City, and established a private practice in general medicine in Jersey City, which she still maintained.

Dr. Frederick E. G. Valergakis

An emeritus member of our Hudson County component, Frederick E. G. Valergakis, M.D., died on November 13 after a long illness. Born in 1916, Dr. Valergakis earned his medical degree from the Long Island University College of Medicine in 1942 and pursued a career in urology, becoming board certified in that specialty. He was on the staff at the Medical Center and at St. Francis Hospital in Jersey City. Dr. Valergakis was a member of the American Association of Urology.

BOOK REVIEWS

A Time To Be Born. David Bell, M. D. New York, Dell Publishing, 1977. Pp. 189. (Paperback—$1.95)

David Bell's book is interesting. It is a relatively accurate commentary of a pediatric resident's limited view of a hospital pediatric experience. Several patients' problems are described and the emotional responses to the patients of the house staff is given. Hospital jargon often is used and explained.

This book, does not need to be read by physicians or their patients. This pediatric resident's perspective is very narrow. His treatment of complex problems is very superficial and simplistic. He is accurate in recording *his* feelings but, I believe, limited in understanding others'. The lingo of *his* hospital is detailed, but clearly this is not universal, and, therefore, is not even valuable in better understanding of TV programs.

Perhaps Dr. Bell felt better after writing his book, and has done no harm (primum non nocere) but I cannot recommend this provincial approach to anyone except, maybe, other pediatric residents who may empathize.

Richard H. Rapkin, M.D.

Medical and Health Annual—1977. Edited by Richard H. Kessler, M.D., Chicago, Encyclopaedia Britannica, Inc., 1977. Illustrated. pp. 448 ($14.95)

A new venture by the publishers of Encyclopaedia Britannica, this excellent publication can be recommended highly to students, patients, and to the literate non-professional public. It might be useful in the physician's waiting room as well.

The consultants and contributors to this first effort include a most impressive list of university faculty members and scientists with outstanding credentials. The photographs,

reproductions of artistic renderings, and the writing are very commendable.

Although I do not agree with everything, the material is extremely fascinating. The five articles on the history of medicine deal with "the history of medical education and the doctor-patient relationship from tribal times to the present." "Medical Messages from the New World" is an enchanting description of the medical knowledge we have gained through the study of pre-Columbian medical sculpture by Abner I. Weisman, M.D., FACS, Emeritus Clinical Professor of Obstetrics and Gynecology. Professor Weisman's description of the figure of a small boy in the process of urinating versus a similar but older figure in the same static pose is delightful. When filled with water, the hollow terra cotta statue of the boy urinates "with a fine parabola-type curved stream," while the older male, obviously suffering with prostatism "dribbles when filled with fluid."

Other sections deal with quackery, a symposium on health, arthritis and rheumatic disorders, the menopause, and other topics, including health care systems. A first aid handbook also is included. Arthur Krosnick, M.D.

The Nervous System. William F. Ganong. Las Altos, Colifornio, Lange Medical Publicatians, 1977. Pp 226. Illustrated. ($8)

Dr. Ganong has written an incomplete and superficial but highly readable summary of the mammalian nervous system. It is elementary enough to be useful to technicians, nurses, and psychology majors, but not of sufficient depth to aid medical students and house staff officers in passing examinations.

The clinician will find this an interesting, highly readable review of neurophysiology and anatomy with a few concise clinical examples. Neurochemistry, neuropharmacology and neuroendocrinology are woven into each chapter.

The index is thorough but the references that are at the end of each section rather than at the end of the chapters are not as complete or up-to-date as one might wish.

This summary is a good starting point for anyone who wishes to obtain a current overall view of the nervous system and its terminology for a modest cost, without being overwhelmed by excessive detail.

Henry R. Liss, M.D.

Too Old, Too Sick, Too Bad: *Nursing Homes in America.* Frank S. Mass ond Vol Halamandaris. Germantawn, Maryland, Aspen Systems Corporatian, 1977. pp. 326. (na price given).

This book can be read with benefit by physicians, since we almost all refer patients to nursing homes and many of us actually care for them while they are institutionalized. The families of patients probably will be greatly disturbed after reading it.

Too Old, Too Sick, Too Bad is largely a political book, cataloging a multitude of abuses occurring in nursing homes. Only one chapter deals with good nursing homes and another with how to choose a nursing home. While these two chapters contain some useful pointers, the remainder is a monotonous recital of "horror stories" often told in an anecdotal fashion. The book seems to suggest that, heretofore, nursing homes have not been satisfactory because of insufficient local and state controls and that if the Federal Government applied more standard and direct controls all would be well. Whether or not this is so is a matter of conjecture.

A major deficiency of the book is its lack of clarification and indeed, at times, its obscuring of the differences between Medicare SNF and Medicaid SNF. Medicare SNF, previously called extended care facility, was designed to get patients out of the acute medical-surgical hospital sooner. It involves short term, relatively sophisticated care oriented toward rehabilitation, with the actual goal, that of getting the patient back into the community. Medicaid SNF, on the other hand, is nursing home care at a lower level, less sophisticated, and generally long term. It often involves permanent placement. Medicaid also covers intermediate care, a custodial type function. These differences are important.

As medical people we all recognize the major deficiencies of nursing homes as illustrated by authors. They suggest more regulations and controls as a method of correction. Unfortunately, they only too briefly mention the alternatives such as encouraging more home care of the elderly with tax incentives, expanded home care facilities, and so on. If the reading of this book results in enough discussion of these alternatives to bring about significant improvement in the care for our elderly, *Too Old, Too Sick, Too Bad* will have served a useful function.

Werner J. Hollendonner, M.D.

Medicolegal Aspects of Medical Records. 2nd editian. Emonuel Hayt. Berwyn, Illinois, Physicions' Recard Company, 1977. Pp 519. (Price nat given.)

From its title the reader assumes that the subject of this book is restricted to the legal aspects of hospital records. In fact, many other timely subjects are covered in considerable detail. For example, chapters are devoted to topics such as patient's rights, consent to treatment, treatment of rape victims, transplantation of organs, and hospital liability. Thus this book may serve as a useful reference text for hospital administrators and others who must address themselves to the many legal issues that arise in the delivery of health care.

As its primary emphasis the book presents a thorough discussion and analysis of medicolegal problems that arise from the process of documenting the entire hospital experience of the patient in a medical record. Medical records are maintained by hospitals primarily to provide complete information about their patients. However, demands are being placed on hospitals and other health care providers by third parties for the accumulation and release of patient medical information. At the same time many consumer groups have expressed concern about privacy rights and the desire to exercise control over the use of medical information. A delicate balance must be struck. The hospital, as the owner of the medical record, must decide who may use it, for what purpose, and when to release information from it. This book may be particularly useful in assisting those who are responsible for the development of policies and guidelines concerning the use of medical records and the release of medical information. The problems in this area are diverse and familiarity with this reference text may prevent legal entanglements for the hospital.

James E. George, M.D.

MEDICAL DIRECTOR/PSYCHIATRIST

Will assume clinical leadership in a hospital based Mental Health Center. Candidate must have minimum 2 years post-residency experience in a community mental health center and be licensed to practice in New Jersey.

Send resume including salary history to:
Personnel Department
South Amboy Memorial Hospital
540 Bordentown Avenue
South Amboy, New Jersey 08879
Equal Opportunity Employer

OCEAN COUNTY

5 Miles South of Toms River

NOW RENTING
NEW MEDICAL AND DENTAL ARTS BUILDING
GROUND LEVEL, 1400 sq. ft. (may subdivide)

General Dentist located in building
Excellent for Group or Solo practice

For more information
CALL (609) 693-6524

PROFESSIONAL BUILDING OFFICE SPACE

JERSEY CITY—adjacent to modern hospital. 2,500 square feet, may be rented out as TWO suites of 1300 and 1200 feet. Will alter to suit. Ophthalmologist and optician located in building.
Excellent for group or solo medical or dental practice, especially pediatrics.

(201) 653-3171

FOR SALE
INTERNAL MEDICINE PRACTICE

Same location for over 15 years on main thoroughfare of very pleasant MONMOUTH COUNTY community. 700 square feet of office space in professional building. Lease arrangements readily arranged. Leaving for reasons of health. Terms negotiable.

Write Box No. 31
c/o THE JOURNAL MSNJ
315 West State St.
Trenton, N.J. 08606

THE JOURNAL of The Medical Society of NEW JERSEY

Rate Card effective January 1978

Rates

	1 time	3 times	6 times	12 times
1 page	280	270	260	240
½ page	160	150	140	130
¼ page	75	70	65	60
⅛ page	50	45	40	35

Classified: Available to member physicians only.

Closing Dates for Space:

a. Reservations: 1st of month preceding month of issue

b. Cancellations: 6th of month preceding month of issue

Agency Commission: 15%

Cash Discount: 2%, 10 days.

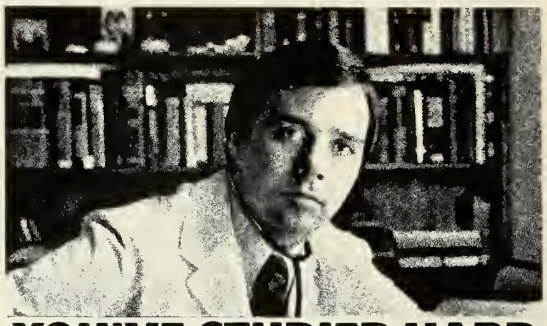
Director of Emergency Department

Overlook Hospital, in the suburban community of Summit, N.J. (25 miles from NYC) is a progressive 540-bed teaching hospital affiliated with a major medical center. We are seeking a physician as Director of our Emergency Department.

As the director, you will be responsible for patient care services, teaching programs for house staff and long-range planning and development, assisted by full-time emergency physicians and administrative staff. Candidate should be Board-qualified in a related discipline (residency in Emergency Medicine highly desirable), and have at least 5 years experience. Candidate must have had previous administrative responsibilities. Actual experience as director or assistant director of an emergency room would be preferred.

We offer a competitive salary and excellent fringe benefits. Send c.v. to Search Committee, c/o Daniel J. Ehrlich, Personnel Director

OVERLOOK HOSPITAL
Summit, New Jersey 07901
An Equal Opportunity Employer



YOU'VE STUDIED HARD TO BE A DOCTOR. BE A DOCTOR.

The U.S. Navy can offer you the kind of practice you studied so hard for. Devoting your time solely to the practice of medicine.

As a Navy physician, we'll give you a challenging and rewarding practice—a practice with a minimum of paperwork and no administrative overhead. It's a practice complete with excellent facilities and support personnel.

In addition, you'll find a Navy practice allows you time to spend with your family. Associate with other highly motivated physicians. Further your schooling. Even enjoy 30 days' paid vacation every year.

All this, plus a starting salary of $30,000 a year—more, depending on your experience.

If it all sounds like the practice you studied so hard for, call us for more information. Just contact:

HARRIET E. ZECH, Lt. Nurse Corps, U.S.N.
Gateway 1 Bldg., Newark, NJ 07102
Phones 201-645-2109, 201-645-2181

BE THE DOCTOR YOU WANT TO BE. IN THE NAVY.

Physicians,

consider a practice in South Carolina

* low malpractice insurance rates, * the opportunity to join a group or partner or establish a new practice in a rural or urban area, * continuing medical education through a system of Area Health Education Centers, as well as two medical schools, * lower taxes, * lower cost of living, * access to both mountains and beaches, and * a mild climate

For information about specific practice opportunities in South Carolina, contact:

rural health delivery project

Post Office Box 11188
Columbia, South Carolina 29211
(803) 779-7264

RESIDENCY IN PHYSICAL MEDICINE AND REHABILITATION

Dynamic, young program with balanced academic and clinical emphasis under the supervision of 10 physiatrists. Three year program and integrated internship/residency with opportunity for research and pursuit of special interests both in medical school and private hospital settings. Stipends from $13,300 to $15,200 depending on qualifications. We will pay for visits in selected cases. Equal Opportunity/Affirmative Action Employer. Telephone or write for information to:

John F. Ditunno, Jr., M.D., Director
Department of Rehabilitation Medicine
Thomas Jefferson University Hospital
11th and Walnut Street
Philadelphia, Pa. 19107
Telephone: (215) 829-6573

CLASSIFIED ADVERTISEMENTS

AVAILABLE—Subspecialty, Gastroenterology; Seeks solo, partnership or group. Board certified (I.M.), University of Bombay (India) 1970. Available August 1978. Francis C. D'Mello, M.D., 4830 91 Place, Elmhurst, Queens, New York 11373.

AVAILABLE—General Practitioner; Seeks practice opportunity, solo, group or institutional. Age 39, board experience. Available in June 1978. S.H. Jone, M.D., 403 Hampton Street, Philipsburg, Pa. 16866.

AVAILABLE—Young Internist; Board eligible. Seeks group or partnership in Northern New Jersey, suburb or city. Available July 1978 and certified September 1978. David T. Klein, M.D., 4750 Bedford Avenue, Brooklyn, New York 11235. (212) 743-1839.

AVAILABLE—Internist; Seeks group practice position. Age 32, ABIM eligible, university trained. Available July 1978. Reply Box No. 32, c/o THE JOURNAL.

AVAILABLE—Obstetrician and Gynecologist; Seeking partnership, associate or group. Diplomate of American Board of OB/GYN. Fellow American College of Obstetrician and Gynecology. New Jersey license, Available July 1978. Write Box No. 35, c/o THE JOURNAL.

AVAILABLE—Ophthalmologist; Seeks partnership, associate or group. Board eligible, 28, married. Completing university residency. Available July 1978. Please reply to Allan S. Markowitz, M.D., 3535 Rochambeau Avenue, Bronx, New York 10467. (212) 547-4599.

AVAILABLE—Pediatrician; Seeks to join group, hospital, in-patient clinic, partner or assume solo practice. Board certified. New Jersey license. Write Box No. 33, c/o THE JOURNAL.

AVAILABLE—Pediatrician; Seeks opportunity in Pediatric practice or Emergency Room. Board eligible, age 30, married, American, University trained. Available immediately. Reply Box No. 34, c/o THE JOURNAL.

AVAILABLE—Pediatrician; Seeks solo practice or partnership with group. Board certified, ten years experience. Write Box No. 37, c/o THE JOURNAL.

AVAILABLE—Urologist; Seeks association leading to partnership. Age 31, finishing major Philadelphia University program June 1978. Write Box No. 30, c/o THE JOURNAL.

AVAILABLE—Urologist; Seeks partnership, associate or group. Completing residency July 1978. Please reply to B.N. Bhargava, M.D., 353 East 17th Street, New York, New York 10003. (212) 673-1457.

NEEDED—Dermatologist; certified or eligible to join two Certified Dermatologists in busy, interesting, pleasant New Jersey practice. 45 minutes from New York. Immediate or July 1, 1978. Send Curriculum Vitae to: Dermatology Associates, 349 East Northfield Road, Livingston, New Jersey 07039.

NEEDED—Emergency Physician; excellent opportunity, Central New Jersey, university community. Academically oriented, professionally and financially rewarding. Six-man group. Call E. V. McGinley, M.D. (201) 277-0466.

NEEDED—Psychiatrist; retired, with New Jersey license; full or part-time; private mental health center. Toms River. Flexible hours. Call (201) 240-5655.

NEEDED—Associate in Radiology. Established private practice in metropolitan New Jersey. Knowledge of Spanish helpful. Write Box No. 29, c/o THE JOURNAL.

PRACTICE AVAILABLE—Sale, lease with option to buy. Full-time Pediatric Practice, Monmouth County, seashore area. Close to 2 teaching hospitals. Annual gross $125,000. Modern building, all new equipment. Will introduce. Write Box No. 26, c/o THE JOURNAL.

PRACTICE AVAILABLE—General Practice, well-equipped, established 31 years in Wharton, New Jersey (Northwest). Dover General Hospital within walking distance. Available immediately. FOR SALE—X-ray machine; make: Standard; model: Standex 100 M.A. w. Fluoroscope; tilt table, hand driven; all accessories. Charles K. Carleton, M.D., 266 South Main Street, Wharton, New Jersey 07885. Telephone (201) 366-2557.

FOR SALE—Gyn/Ob Equipment, Practice 6 rooms (3 examing). 15 miles New York City. Board member retiring. Write Box No. 39, c/o THE JOURNAL.

FOR SALE—Home/Office: 30 years Industrial Medicine and Family Practice; 14 room brick colonial; central air-conditioning; underground sprinkler system; 2-car garage with radio-controlled door. Free G.E. X-ray, office furniture and equipment. **Office:** 5 large rooms including waiting room complete with furniture, consultation room with built-in bookcases and storage cabinets, 2 treatment rooms with examining tables and cabinets, x-ray room with 200 MA x-ray, motor-driven table with 81 under-counter storage drawers. Note: all Furniture and Equipment included Free. **Home:** large modern eat-in kitchen, dining room, den, living room with wood burning fireplace; 4 bedrooms and 2 full bathrooms on 2nd floor; maid's room and full bath on 3rd floor. Basement has large storeroom and workshop, wood-paneled playroom, built-in bar, lavatory and laundry. Leaving due to ill health. Price of building is negotiable. Buy of a lifetime. Easy mortgage guaranteed. Write Box No. 38, c/o THE JOURNAL or phone Louise Bussiere (201) 778-4500.

OFFICE SPACE—Modern building with x-ray, laboratory, five other practitioners. "Cheap" less than going rents in area. Contact Box No. 36, c/o THE JOURNAL.

OFFICE SPACE—Fair Lawn; Choice Suite. 860 foot suite in modern professional building, opposite Fair Lawn Memorial Hospital. Ideal location near several open staff hospitals. Multi-specialty building with owner-occupant. Generous on-site parking. Joachim Oppenheimer, M.D. 11-26 Saddle River Road, Fair Lawn, New Jersey 07410. (201) 796-9200.

OFFICE SPACE—Moorestown Victoria Medical Arts Building. New custom built medical offices for rent near Route 295 and Route 38 and Philadelphia. Good parking. Excellent location. Applying for solar heating. (609) 235-2651.

FOR RENT—New Brunswick; Physician's office, furnished and equipped. Centrally located in New Brunswick. Reasonable rent. (201) 545-1660.

Information for Members—RATES:—$5.00 per insertion up to 25 words; 10 cents each additional word. Payable in advance. **WORD COUNT:** Count as one word all single words, two initials of a name, each abbreviation, isolated numbers, groups of numbers, hyphenated words. Count name and address as five words, telephone number as one word, and "Write Box No. 000, c/o THE JOURNAL" as six words. **COPY DEADLINE:** Fifth of preceding month.

Kefzol® I.M./I.V.

cefazolin sodium

Ampoules, equivalent to 500 mg., 1 Gm., and 10 Gm. of cefazolin



Lilly

Additional information available to the profession on request.
Eli Lilly and Company
Indianapolis, Indiana 46206

700773

[Medical Society of New Jersey.



The Library
Acquisitions Division
Univ. of Calif., San Francisco

LIBRARY
U.C. SAN FRANCISCO
MAR 2 9 1978

March 1978

Journal of the Medical Society of New Jersey

Suspending Prolapsed Vaginal Stump
Hazel Lin, M.D.

Genetic Clinic in Community Hospital
L. Schechter, M.S., et al.

Focal Cerebral Ischemia
Roger W. Countee, M.D.

Legionnaires' Disease
A. M. Ackley, Jr., M.D., et al.

Complete Table of Contents on Page 212

Check List For Savings

Under The Medical Society of New Jersey

Endorsed Insurance Plans

NEW HIGHER LIMITS	$4600 Monthly Accident and Health
TAX DEDUCTIBLE PREMIUM	$5,000 Professional Overhead Expense Plan
INCREASED FROM $150,000	$250,000 Term Life Insurance
$250,000 COVERAGE	Quarter-Million-Dollar Major Expense Plan
HIGH LIMITS— LOW COSTS	$200,000 Six Point High-Limit, Accidental Death, Dismemberment, Total Disability
EXTRA MONEY WHEN HOSPITALIZED	$60 a day Hospital Money-Indemnity Plan
$7500—15%	$7500 Tax-deductible KEOGH Plan and Corporate Master Plan

CHECK THIS LIST AGAINST YOUR COVERAGES . . . ASK FOR FREE NO-OBLIGATION INFORMATION ABOUT THE NEW MONEY-SAVING PLANS!

E. & W. BLANKSTEEN AGENCY, INC.

E. & W. BLANKSTEEN

75 MONTGOMERY STREET • JERSEY CITY, N.J. 07302

(201) 333-4340

NOW, AS A SOCIETY MEMBER, YOU CAN LEASE A CAR (OR A SMALL FLEET) AT A PREFERRED RATE.

Your society is pleased to announce special low, preferred rates on car or truck leases from Commercial Credit/McCullagh Leasing, Inc., one of the nation's foremost leasing organizations.

In addition to preferential rates, special features offered to members include:

- All vehicles delivered directly to your home or office, when you specify.
- An unlimited selection. All makes, models, colors and options.
- Complete freedom from time-consuming licensing, registration and paperwork. This is all handled for you.
- A national account purchase charge plan with significant price reductions on auto supplies including tires, batteries and services, at major suppliers throughout the nation.
- No down payment or trade-in is needed.
- Exclusive "Man-In-Detroit" warranty back up service to resolve local service problems.
- McCullagh Leasing, Inc. is part of the $4 billion Commercial Credit Family with over 50,000 vehicles on the road.

For more information, mail the coupon today.

MEDICAL SOCIETY OF NEW JERSEY
P.O. BOX 904
TRENTON, N.J. 08605

Gentlemen:
Please send me leasing information on the following:

Car _____ Truck _____ Auto Fleet _____

Make _____

Model _____

Options _____

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

COMMERCIAL CREDIT/
McCULLAGH LEASING, INC.
a financial service of
CONTROL DATA CORPORATION

THE MEDICAL SOCIETY OF NEW JERSEY

Founded July 23, 1766

Officers and Trustees

PRESIDENT
Frank R. Begen, M.D. (Bergen) ..... Teaneck
PRESIDENT-ELECT
Charles S. Krueger, M.D. (Burlington) ..... Mount Holly
FIRST VICE-PRESIDENT
Alfred A. Alessi, M.D. (Bergen) ..... Hackensack
SECOND VICE-PRESIDENT
George L. Benz, M.D. (Essex) ..... Newark
IMMEDIATE PAST-PRESIDENT
John S. Madara, M.D. (Salem) ..... Salem
SECRETARY
Arthur Bernstein, M.D. (Essex) ..... Maplewood
TREASURER
Rudolph C. Gering, M.D. (Mercer) ..... Trenton

Trustees

CHAIRMAN
James S. Todd, M.D. (1980) (Bergen) ..... Ridgewood
Meyer L. Abrams, M.D. (1979) (Burlington) ..... Willingboro
Augustus L. Baker, Jr., M.D. (1979) (Morris) ..... Dover
Edward G. Bourns, M.D. (1978) (Union) ..... Westfield
Frank Campo, M.D. (1978) (Mercer) ..... Trenton
S. Thomas Carter, Jr., M.D. (1978) (Camden) ..... Collingswood
John J. Crosby, Jr., M.D. (1978) (Hudson) ..... Jersey City
Anthony P. DeSpirito, M.D. (1979) (Monmouth) ..... Neptune City
Sherman Garrison, M.D. (1980) (Cumberland) ..... Bridgeton
Armando F. Goracci, M.D. (1979) (Gloucester) ..... Woodbury
William Greifinger, M.D. (1978) (Essex) ..... Belleville
Richard E. Lang, M.D. (1978) (Passaic) ..... Passaic
Howard D. Slobodien, M.D. (1978) (Middlesex) ..... Perth Amboy
Frank Y. Watson, M.D. (1980) (Essex) ..... Montclair

Councilors

FIRST DISTRICT
(Essex, Morris, Union, and Warren Counties)
Merton L. Griswold, Jr., M.D. (1978) ..... Plainfield
SECOND DISTRICT
(Bergen, Hudson, Passaic, and Sussex Counties)
John L. Olpp, M.D. (1980) ..... Englewood
THIRD DISTRICT
(Hunterdon, Mercer, Middlesex, and Somerset Counties)
Albert F. Moriconi, M.D. (1979) ..... Trenton
FOURTH DISTRICT
(Burlington, Camden, Monmouth, and Ocean Counties)
Frederick W. Durham, M.D. (1978) ..... Haddonfield
FIETH DISTRICT
(Atlantic, Cape May, Cumberland, Gloucester, and Salem Counties)
John A. Surmonte, M.D. (1980) ..... Penns Grove

AMA Delegates

Louis F. Albright, M.D. (1977) ..... Spring Lake
George L. Benz, M.D. (1978) ..... Newark
Karl T. Franzoni, M.D. (1978) ..... Trenton
Frank J. Hughes, M.D. (1978) ..... Camden
Emanuel M. Satulsky, M.D. (1978) ..... Elizabeth
James S. Todd, M.D. (1979) ..... Ridgewood
Robert E. Verdon, M.D. (1978) ..... Cliffside Park

March 1978

Publication Committee
Daniel B. Roth, M.D., *Chairman*
Julio C. del Castillo, M.D.
John F. Marshall, M.D.

Editor
Arthur Krosnick, M.D.

Associate Editors
William A. Dwyer, Jr., M.D.
Bernard D. Pinck, M.D.
Richard H. Rapkin, M.D.

Assistant Editor
Marjorie D. Treptow

Advertising Office
Bettie N. Cookson

Executive Director
Vincent A. Maressa

Executive Director Emeritus
Richard I. Nevin

Manuscript Review Board
Jerome Abrams, M.D.
Francis P. Chinard, M.D.
Alfonse Cinotti, M.D.
Arthur Goldfarb, M.D.
Martin Goldfield, M.D.
Robert A. Goldstone, M.D.
M. Jay Goodkind, M.D.
Murray Kahn, M.D.
Sidney Ketyer, M.D.
Bernard J. Koven, M.D.
Henry R. Liss, M.D.
Hugh F. Luddecke, M.D.
Geobel A. Marin, M.D.
Murray Nussbaum, M.D.
Victor Parsonnet, M.D.
Leonard Policoff, M.D.
Irwin Pollack, M.D.
Edwin L. Rothfeld, M.D.
Benjamin Rush, M.D.
Mark M. Singer, M.D.
Leon G. Smith, M.D.
Sheldon D. Solomon, M.D.
Lloyd N. Spindell, M.D.
A. Arthur Sugerman, M.D.

Published monthly (since 1904), under direction of the Committee on Publication, by The Medical Society of New Jersey, 315 West State St., Trenton, N.J. Printed in East Stroudsburg, Pa. by the Hughes Printing Co. Whole number of issues 883. Member's subscription ($5) is included in Society dues. Rates for nonmembers, $10; outside USA add $4 for postage. Single copies, $1. Address communications to *The Journal*, MSNJ, P.O. Box 904, Trenton, N.J. 08605 (609) 394-3154. Second class postage paid at Trenton, N.J. and additional entry office.

Copyright 1978 by The Medical Society of New Jersey.



Tolinase®
tolazamide, Upjohn

Please contact your Upjohn representative for additional product information.

Upjohn

J-5695-6

©1977 THE UPJOHN COMPANY

March 1978

Journal of the Medical Society of New Jersey

America's First Medical Society

Volume 75
Number 3

Pages 209-286

EDITORIALS

219 Assurance of Quality Care
220 Is the FTSC the Answer?
220 New Jersey Helipads
221 Malfunction of Prosthetic Heart Valves

ORIGINAL ARTICLES

225 Technique of Suspending a Completely Prolapsed Vaginal Stump
Hazel Lin, M.D., Jersey City

231 Satellite Genetic Clinic in Community Hospital
L. Schechter, M.S.; N. Bartnoff, M.S.; S. F. Wang, M.D., Morristown

235 Feasibility of Data Processing for Group Practices
Frances Magdziak; Susan Fisher, Camden

REVIEW ARTICLE

239 Pathophysiology of Focal Cerebral Ischemia and Rationale of Surgical Management
Roger W. Countee, M.D., Newark

CASE REPORTS

245 Legionnaires' Disease in New Jersey
A. M. Ackley, Jr., M.D.; J. J. Tambascia, M.D., Princeton

248 Chronic Ethmoid Sinus Foreign Body
Stephen Freifeld, M.D.; Jordan Burke, M.D., Summit

250 Fatal Poppet Embolization from Braunwald-Cutter Prosthesis
A. O. Fayemi, M.D.; M. Ali, M.D.; E. V. Braun, M.D.; F. Gilroy, M.D., Teaneck

COMMENTARY

255 The Truth About NHI

DOCTORS' NOTEBOOK

257 Trustees' Minutes: January 15, 1978
258 CMDNJ Notes
259 Nutrition Update
264 Report from the Foundation
264 Physicians Seeking Location in New Jersey

267 **PERSONAL ITEM**

269 **LETTERS TO THE JOURNAL**

271 **ANNOUNCEMENTS**

273 **MEETINGS OF MEDICAL INTEREST**

279 **OBITUARIES**

281 **BOOK REVIEWS**

212th Annual Meeting
May 6-9, 1978
Atlantic City

Cover

The cover, which simulates a "Medivac" helicopter approaching the helipad at Mercer Medical Center, Trenton, was prepared from three photographs taken by M. Jay Goodkind, M.D., Trenton cardiologist, who provided material for several covers used last year.

PERFORMANCE. PROVEN EFFECTIVENESS WITHIN A WIDE SAFETY MARGIN.



While Roche Laboratories already knows more about the performance of Librium than anyone else, we keep on learning every day.

For example, the highly favorable benefits-to-risk ratio of Librium is a well-documented matter of record.

And, of course, the specific calming action of Librium has been demonstrated in millions of patients around the world. In a large number of these patients, Librium was used concomitantly with other primary medications.

Proven performance within a wide safety margin. Basically, that's what Librium is all about.

LIBRIUM® Ⓒ℞

chlordiazepoxide HCl/Roche

THE ANXIETY-SPECIFIC

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Supplied: Librium® Capsules containing 5 mg, 10 mg or 25 mg chlordiazepoxide HCl. Libritabs® Tablets containing 5 mg, 10 mg or 25 mg chlordiazepoxide.

ROCHE

Roche Products Inc.
Manati, Puerto Rico 00701

Information for Readers and Contributors

The Journal is the official organ of the Medical Society of New Jersey. It is published monthly under the direction of the Committee on Publication and is released the first week of the month. A copy is sent to each member of the Society. The goals of *The Journal* are educational and informational. Each issue contains material of special interest to the members, including actions and opinions of the Board of Trustees. All material published in *The Journal* is copyrighted by the Medical Society of New Jersey.

CONTENT

The educational content of each issue appears as original *scientific articles, case reports, review articles, clinical notes,* and *special articles.* Contributors must understand that material submitted here is for exclusive publication in *The Journal.* The Committee on Publication may give permission to authors of original material to reprint articles elsewhere with appropriate credit to *The Journal;* such permission must be requested by the author. The principal aim in the preparation of contributions should be relevance to diagnosis and treatment and to education of patients and professionals. Accuracy, honesty, and comprehensibility are primary requisites. Preference will be given to professional authors from New Jersey and to out-of-state lecturers who submit a suitable manuscript based on a presentation made in New Jersey.

SCIENTIFIC ARTICLES

Scientific articles should be based on personal studies and observations by the authors. The content may include research data, original concepts relative to epidemiology of disease, treatment methodology, educational theory and practice, and so on. Papers of this description may be technical or clinical in nature, but relevance to our readership must be considered.

CASE REPORTS

One or more interesting or unusual clinical case experiences may be submitted for consideration. The case(s) should have unique features worthy of the attention of our readers. Case reports should be short, and the discussion should deal with the condition described. References must be limited; a case report is *not* a review of the world's literature.

CLINICAL NOTES

The Editor will consider brief items of interest to clinicians. Clinical notes may include some aspect of a case experience or deal with a new observation or technique. Clinical notes do not require the benefit of intensive research nor references, but should be succinct, didactic presentations.

SPECIAL ARTICLES

These will include scholarly evaluations, essays, policy and position papers, medical history, and reviews of non-scientific subjects.

REVIEW ARTICLES

Authors may submit comprehensive reviews on topics of interest, but such reviews must be careful critiques based on personal reading of reference articles. Authors of review articles are advised to discuss in advance with the Editor the potential for publication of a particular topic.

EDITORIALS

The Editor and Associate Editors prepare editorials on timely and relevant subjects for *The Journal.* Guest contributors will be invited to prepare editorials on specific topics. Editorials may be provocative, but will remain within the bounds of good taste and legal restrictions. Special editorials may pay tribute to past or present members of the Society who have attained high office or made important contributions worthy of special recognition. Editorials may comment on original articles. All editorials are the responsibility of the authors and not of the Medical Society of New Jersey.

COMMENTARIES

The commentary is a long editorial which deals with a particular topic in greater detail. Commentaries will be written by the editorial staff or by invited contributors.

NEW JERSEY DOCTORS' NOTEBOOK

This department contains organizational and administrative items from the Medical Society. It also contains reports and information worthy of special attention to New Jersey physicians. Material may emanate from within the Society, from state or federal government agencies or elsewhere. Actions of the Board of Trustees will be recorded here. Names, addresses, specialties, and qualifications will be published regularly for physicians seeking to locate in our state—as a service to them and to physicians and hospitals looking for practitioners as associates or employees.

LETTERS

Letters to the Editor will be published. Here again, the bounds of good taste and legal considerations dictate a measure of restraint, although correspondents are free to express their opinions.

BOOK REVIEWS

Books of interest to physicians or their patients will be reviewed. The Editor will request a member of the Society or another qualified person to review each book and to prepare a succinct comment for publication in *The Journal* and for the benefit of the publisher.

MEETINGS OF MEDICAL INTEREST

The Journal publishes a calendar of medical events in New Jersey in a timely fashion to assist physicians in their con-

tinuing medical education. The material is compiled by MSNJ's Committee on Medical Education, the Academy of Medicine of New Jersey, the New Jersey Chapter of the Academy of Family Physicians, and the office of Continuing Education of the College of Medicine and Dentistry of New Jersey.

ADVERTISEMENTS

The Journal accepts advertising material of interest to physicians from national and local sources. Each item is scrutinized for accuracy and fairness, but *The Journal* does not "warrant the safety or efficacy of products so advertised."

ANNOUNCEMENTS

A separate section will present expanded descriptions of programs in continuing medical education inside or outside of New Jersey.

OBITUARIES

Notices of the death of members of the Medical Society of New Jersey are published in *The Journal* as soon as possible after receipt of information. These will be factual rather than personal since they are prepared by the editorial staff.

SPECIFICATIONS

Manuscripts—Manuscripts must be typewritten double-spaced on 8-1/2 by 11" paper with margins of at least one inch. The original and one copy should be submitted to the Editors. Authors must understand that the essential content of the material submitted is for the exclusive use of *The Journal* and will not be published elsewhere except in abstract form or with the consent of the Committee on Publication. Statistical methods used in articles should be identified. Acknowledgments of aid in preparation of manuscripts will not be made, except for specific preparation of an essential part of the manuscript (such as statistical data, special photographs, and so on).

Tables and Illustrations—Tables must be typewritten, double-spaced on separate 8-1/2 by 11" sheets. Each table must have a title and number. Symbols for units should be confined to column headings, and abbreviations, properly explained, should be kept to a minimum. Illustrations or figures should be of professional quality, photographed and submitted as black-and-white glossy prints. They should be unmounted and not damaged by staples or paper clips. The name of the author, figure number, and the top of the figure should be noted on a label attached to the back of each illustration. Where photographs of patients are used, the subjects should not be identifiable or publication permission, signed by the subject or responsible person, must be included with the photograph. Material taken from other publications must give credit to the source; written permission for republication from the original publisher must be submitted. The cost of color photographs must be borne by the author.

Title Page—The title page should include the full name, degrees, and affiliations of all authors, and the name and address of the author to whom reprint requests should be sent.

Summary—The summary of the article should not exceed 250 words. It should contain the essential facts in such a form as to be understandable without reference to the text. Meticulous writing of this section is essential.

Abstract—The author should submit a 50-word abstract to be used at the beginning of the article. Because of its brevity every word and idea counts. The abstract is a summary of the summary.

Drug Names—Generic names should be used with proprietary names indicated parenthetically or as a footnote with the first use of the generic name. Proprietary names of devices should be indicated by the registration symbol—®.

References—References should be cited consecutively in the text by numbers in parentheses at the end of the sentence. The reference list should be typed double-spaced on separate 8-1/2 by 11" sheets in the numerical order in which they are first cited in the text. The style of references is that of *Index Medicus*.

Examples:

Goldwyn RM: Subcutaneous mastectomy. *J Med Soc NJ* 74:1050-1052, 1977.

Dixon WJ, Massey FJ: *Introduction to Statistical Analysis*. New York, McGraw-Hill, 1969, pp 00-00.

Accident Facts. Chicago, Illinois, National Safety Council, 1974.

Authors are responsible for the accuracy of references. The reference list should not exceed 35 citations except in review articles. Where the number of references is excessive, *The Journal* may ask the author to bear the cost of the extra pages.

PUBLICATION POLICY

The receipt of each manuscript will be acknowledged immediately and the manuscript delivered to the Editor who will begin the review process. *The Journal* maintains a Manuscript Review Board, appointed by the Board of Trustees. The members are acknowledged authorities selected from the membership of MSNJ. The Editor sends each manuscript to one or more reviewers who carefully scrutinize the material and render an opinion to the Editor as to the potential for publication. The final decision is reserved for the Editor. Where necessary, qualified ad hoc reviewers are consulted. The Editor notifies the authors of his decision. No direct contact between the reviewers and the authors will be permitted, but authors will be informed of the reviewers' comments. The publication lag for original articles may be six months or more. After acceptance, galley proofs will be prepared and submitted to the author for correction of typographical errors. Editorial changes which are made in the interest of clarity or good grammar should not be altered by the author. Reinsertion of redundant material deleted by the Editor is not permitted.

REPRINTS

Reprints may be ordered after the author is notified that his article has been selected for a specific issue of JMSNJ. A check for the cost of reprints including remake charge if order is received after due date must accompany the order.

CHANGE OF ADDRESS

Notice of change of address should be sent promptly to the Medical Society of New Jersey, P.O. Box 904, Trenton, New Jersey 08605.

COMMUNICATIONS

All communications should be sent to the Editor, *The Journal*, MSNJ, P.O. Box 904, Trenton, New Jersey 08605.

Angina freedom fighter...



Freedom from anginal pain



Freedom from anginal fear

1. Taken sublingually, Cardilate® (erythrityl tetranitrate) begins to work within 5 minutes, eliminating or reducing frequency and severity of anginal pain for up to two hours.
2. Fear of pain, a major deterrent to achieving acceptable (and desirable) levels of activity, including sex, may be allayed with Cardilate. Effective prophylaxis and improved exercise tolerance help toward normalizing the lives of anginal patients.

Cardilate®
(erythrityl tetranitrate)

Cardilate® (erythrityl tetranitrate)
INDICATIONS: For the prophylaxis and long-term treatment of patients with frequent or recurrent anginal pain and reduced exercise tolerance associated with angina pectoris, rather than for the treatment of the acute attack of angina pectoris, since its onset is somewhat slower than that of nitroglycerin.

PRECAUTIONS: As with other effective nitrites, some fall in blood pressure may occur with large doses.

Caution should be observed in administering the drug to patients with a history of recent cerebral hemorrhage, because of the vasodilation which occurs in the area. Although therapy permits more normal activity, the patient should not be allowed to misinterpret freedom from anginal attacks as a signal to drop all restrictions.

SIDE EFFECTS: No serious side effects have been reported. In sublingual therapy, a tingling sensation (like that of nitroglycerin) may sometimes be noted at the point of tablet contact with the mucous membrane. If objectionable, this may be mitigated by placing the tablet in the buccal pouch. As with nitroglycerin or other effective nitrites, temporary vascular headache may occur during the first few days of therapy. This can be controlled by temporary dosage reduction in order to allow adjustments of the cerebral hemodynamics to the initial marked cerebral vasodilation. These headaches usually disappear within one week of continuous therapy but may be minimized by the administration of analgesics.

Mild gastrointestinal disturbances occur occasionally with larger doses and may be controlled by reducing the dose temporarily.

HOW SUPPLIED: 10 mg chewable scored tablets, bottle of 100. Also 5, 10 and 15 mg oral/sublingual scored tablets in bottles of 100. 10 mg oral/sublingual scored tablets also supplied in bottles of 1,000.

Also available: Cardilate®-P brand Erythrityl Tetranitrate with Phenobarbital* Tablets (Scored).

(*Warning—may be habit-forming.)



Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

THE DEPARTMENT OF MEDICINE and THE PAGE AND WILLIAM BLACK POST-GRADUATE SCHOOL OF MEDICINE of the MOUNT SINAI SCHOOL OF MEDICINE (CUNY)

Announce a Postgraduate Course

NEW APPROACHES TO OLD PROBLEMS IN INTERNAL MEDICINE

Under the Direction of
RICHARD GORLIN, M.D.
HARRIET S. GILBERT, M.D.
and Faculty of the Mount Sinai School of Medicine

May 16-19, 1978—Tuesday-Friday—
9:00 AM to 5:00 PM—(4 Sessians)

The practice of Internal Medicine presents a cantinuing challenge ta integrate new concepts of diagnasis and therapy inta the cantext af patient management. This four-day multidisciplinary caurse in Internal Medicine is designed far the practicing physician and will cut acrass subspecialties to address cammanly encauntered clinical situatians by means of cancise lectures, panel discussians and warkshaps. Each sessian will be prablem-ariented and based an illustrative case material. Oppartunity will be pravided far registrants ta clarify questians arising fram their awn clinical experience thraugh questian-and-answer periods and infarmal discussians with faculty. Sessians will be devated to recent advances in cardialagy, endacrinalogy and metabalism, infectiaus disease, rheumatology, hematalagy and ancalagy, pulmanary disease, renal disease, gastraenterolagy and liver disease. Interdisciplinary discussians will be devated ta the use af beta blacking agents in medical management; an overview af cancer therapy thraugh discussian of clinical madels of success, failure and recent breakthraughs; the relatianship af hyperlipidemia, thrambasis and atherasclerasis; biophysical breakthraughs in Internal Medicine—the current impact and future pramise af camputerized axial tamagraphy, sanagraphy and nuclear imaging. A syllabus summarizing the questians ta be addressed by each speaker, pertinent clinical material, and references will be distributed. One afternaan will be devoted ta participatian in small subspecialty warkshaps or may be spent with members af the faculty wha will be available by advance arrangement ta discuss tapics af particular interest ta the registrants. This sessian will be fallawed by attendance at Medical Grand Raunds.

FEE $200

This caurse will be given at the Maunt Sinai Medical Center, New Yark City, New Yark.

APPLY TO: Directar, The Page and William Black Past-Graduate Schaal af Medicine, Maunt Sinai Schaal of Medicine, One Gustave L. Levy Place, New Yark, New Yark 10029. Tel.: (212) 650-6737

Kefzol® I.M./I.V.
cefazolin sodium

Ampoules, equivalent to 500 mg., 1 Gm.,
and 10 Gm. of cefazolin



Lilly

Additional information available to the profession on request.
Eli Lilly and Company
Indianapolis, Indiana 46206

700773

Assurance of Quality Care

We are spending considerable time convincing ourselves that our patients are getting optimal care, that we remain current in our knowledge, and that we are appropriately careful. The effort probably is wasted. We really don't believe the hypothesis since we do know our limitations. In addition, we have learned that it is virtually impossible to assess quality without the assessment itself infringing on the time available for good care. Unfortunately, what we do are things such as audits and utilization reviews by which we certify our current patterns of care. We label that "quality care."

Suppose we were seriously to wish to improve what we were doing. How could it be done? What method would we choose to assess whether our patients were getting state of the art care, provided carefully. The simplest and most direct approach would be to invite an expert to tell us about that area of care in which he had expertise. We do that frequently, but stop short of the next critical step—inviting the expert to participate directly in our patient care. We do not ask him to review our records of our patients. If this is done, the expert may be tempted, however, to pull punches, out of politeness. Almost never will he "tell it like it is."

Who will? If the invited expert is critical, even diplomatically, he'll not be invited back. What is required is an expert who is always there. This expert must be invited by the staff to be permanent; regularly to review records and patient care and tell about what he knows so that we learn.

A fixture in teaching hospitals is the physician "responsible" for a service, whose responsibility is not divided between that service and an office practice. This person is the full-time salaried service chief (FTSC). He often is chosen because of expertise and academic background, and since he must be approved by staff, he usually is a clinician. His responsibility for the service often is undefined, however, and superficially may be considered to be administrative, i.e., arrange teaching, make schedules, interview residents, assure coverage. If it is confined to these latter, then the full-time salaried service chief really is an administrator (at a very high price). If the service chief is to be of real value, he must be responsible for quality of care. This person, therefore, *explicitly* should be the guardian of quality. Since he is an expert and available regularly, he can participate in care as it is given, and encourage quality improvement. If he needs help, the FTSC can appoint surrogates as responsible for divisions or sections. They will report to him for quality control. He remains the responsible individual.

The obvious danger is that the service chief may become either a czar or a Milquetoast. If his contract is for a short term and completely dependent upon staff approval, he may be reluctant to be constructively critical; medical egos are bruised easily. If on the other hand his contract is for a longer term and independent of staff, he could become righteous. This is a danger the staff is very conscious of and is often the major reason for reluctance to grant quality control responsibility to such an individual. The danger is overestimated, however. The hospital audit committee, or the executive committee of the medical staff can review and approve the actions of the service chief. In addition, the basic personal satisfaction the chief has is in the improvement of quality, and since an antagonistic relationship is counter-productive, it rarely will occur. Unfortunately, the greater likelihood is that the chief will find quality control too demanding and too delicate a problem to tackle and will abdicate this responsibility completely, returning to the role of administrator. Here, the Board of Trustees of the hospital will have to assert itself. As the ultimate guarantor of quality, it needs an agent. Insisting that the service chief act responsibly is the role of the trustees.

To return to the basic premise: quality of care needs competent review. Peers tend to ratify current as quality. Experts who have neither too much nor too little independence may be able best to assess and to assure quality. The development of full-time salaried service chiefs, whose job description includes responsibility for quality of care rendered, may be the most reasonable solution. Medical schools have realized increasingly that their research and teaching are very dependent upon service and its quality. They have a clear responsibility for the quality of care of patients in their area. Medical schools in their relationship with hospitals might encourage full-time salaried chiefs, with responsibility for quality, as a basic part of affiliation. This could provide the additional incentive necessary for hospitals to implement same, since medical school affiliation has many advantages. If the premise is correct, the results might prove interesting and exciting.

Richard H. Rapkin, M.D.

Is the FTSC the Answer?

One cannot question our need to enhance and assure the quality of health care in New Jersey—everyone clamors for it, including medical and surgical colleagues, professional organizations, the state and federal governments, the medical board of licensure, and the consumer advocates. Is the full-time service chief (FTSC) the means to such assurance, or perhaps one small step in that direction? Before one simplistically responds "aye," some thoughts of a devil's advocate are in order.

In the development of a statewide FTSC program, there would appear to be certain questions:

1. Is the source of these experts presumed to be the medical schools?
2. What role would the medical school administration and faculty play in community hospital staffing and practice?
3. How can one convince the faculty-appointed, academically oriented FTSC to move to remote or undesirable communities into small hospitals with limited diagnostic and therapeutic potential?
4. How does the FTSC hope to have enough personal knowledge to supervise all the subspecialty experts in his department?
5. How easy will it be for the FTSC to keep up his own medical knowledge?
6. How costly will a statewide program of full-time service chiefs be in New Jersey? Will the cost:benefit ratio be measurable and worthwhile?
7. How about the quality of out-of-hospital medical care?

There are roughly one hundred hospitals providing inpatient care in New Jersey. One must assume that the medical schools in our state and elsewhere will be the source of FTSC's, who will have academic appointments to those institutions. The medical staff members of most community hospitals are very protective of their turf and do not take kindly to the notion of their institution becoming a satellite of a medical school. So, there is the potential for conflict between the FTSC and the staff. Is he *with* us or *against* us? Is he *one of them* or *one of us?*

If the FTSC sees gaps in a staff, will he reach out to his university for additional specialists to fill these gaps? Is there not then a danger of loading the staff and squeezing out the existing members who may have been working there for years? This indeed has happened already in some instances.

It is presumed that the FTSC will practice his specialty to some extent in his institution to help defray his salary and to keep up his knowledge. This then constitutes a potential double danger. He becomes a competitor to the physicians he oversees and, if he is good, he may become so busy as to dilute his ability to assure the quality of care provided by others.

It will not be easy to recruit such experts to the small hospital or to the hospital in outlying or undesirable locations. Those who go to such locales soon may begin to feel remote from their mother academic institution. How difficult will it be to modify the life-long professional behavior of the ten-year-out-of-medical-school practitioner in such institutions? One can be certain it will not be easy.

The FTSC has a another inherent problem to face—how can he be such an expert in the subspecialty fields of his department as to assure the quality of care of the nephrologist, hematologist, oncologist, endocrinologist, pulmonary medical specialist, cardiologist, and gastroenterologist if he is an internist whose primary expertise lies in a different field? Furthermore, how does he keep up his own skills and knowledge? After all, the half-life of his information store is the same as that of his colleagues. It means he must participate in research, teaching of students and/or residents and house physicians, attend conferences at the medical school, and take courses—all of which steal time from quality assurance.

The costs of such a program cannot be overlooked. If one has four full-time service chiefs in 100 hospitals (for medicine, surgery, pediatrics, and obstetrics-gynecology) at the rate of $50,000 per annum each, the statewide cost would be 20 million dollars. Should one have to convince a Medicare or Blue Cross auditor of the benefits of such an expenditure to the citizens; would it be easy? No, indeed! Such evaluation is most difficult. Furthermore, one is still left with the realization that most medical diagnosis and treatment occur in the physician's office, not in the hospital. For every patient he sees in the hospital, a busy practitioner may see ten or more in his office, which is inaccessible to scrutiny.

The full-time service chief concept is a part of the answer to assurance of quality care, but it is not a panacea. Such a major change in the system of health care in our hospitals (not forgetting the cost of such an endeavor) deserves a bit of research before it is universally accepted. There already are many FTSC's in New Jersey hospitals, so one might address the question by examining the current impact of their presence—taking a critical look at their effect on existing medical care. Armed with such data, we all will be equipped better to have an opinion on FTSC's. A.K.

New Jersey Helipads

In Our November 1977 *Journal,* we emphasized the transition from the horse and wagon ambulance to the present-day Lifemobile, and called attention to New Jersey's need for one or more centers for emergency medicine, such as that described in the article on the Maryland Institute for Emergency Medicine (*J Med Soc NJ* 74:979-987, 1977). At that center, the Maryland State Police Med-Evac Helicopter system is part of its initial triage and rapid transportation procedure.

In New Jersey we also have "Medivac," a critical-care

response and transport helicopter service, which is provided by the Helicopter Bureau of the New Jersey State Police and the New Jersey State Department of Defense. At present there are nineteen licensed helipads at New Jersey hospitals at the following locations:

Atlantic City Medical Center, Mainland Division
Carrier Clinic, Belle Mead
Community Memorial Hospital, Toms River
Cooper Medical Center, Camden
Deborah Heart and Lung Center, Browns Mills
Jersey Shore Medical Center, Neptune
Hackettstown Community Hospital, Hackettstown
Hamilton Hospital, Hamilton Square (Trenton)
John F. Kennedy Memorial Hospital, Stratford
Mercer Medical Center, Trenton
Morristown Memorial Hospital, Morristown
Rancocas Valley Hospital, Willingboro
Riverside Hospital, Boonton
St. Barnabas Medical Center, Livingston
Salem County Memorial Hospital, Salem
South Amboy Memorial Hospital, South Amboy
Southern Ocean County Hospital, Manahawkin
West Jersey Hospital, Berlin
West Jersey Hospital, Eastern Division, Voorhees Township

In addition to the New Jersey hospital helipads, the following hospitals in eastern Pennsylvania have helipads:

Philadelphia:
Hospital of the University of Pennsylvania
Children's Hospital of Philadelphia
Philadelphia General Hospital
Graduate Hospital, University of Pennsylvania
Presbyterian-University of Pennsylvania Medical Center
Philadelphia College of Osteopathy
Jefferson Medical Center
Medical College of Pennsylvania
Albert Einstein Medical Center (Northern Division)
St. Agnes Hospital
Parkview Hospital
Outside Philadelphia:
Crozer-Chester Medical Center
Lankenau Hospital
Paoli Medical Center
Wilmington Medical Center

Anyone interested in additional information may contact Colonel John A. Maier, State Aviation Officer, New Jersey Department of Defense, P.O. Box 7128, West Trenton, New Jersey 08628 (609-292-8449).

A.K.

Malfunction of Prosthetic Heart Valves

As demonstrated in the case report, "Fatal Poppet Embolization from a Braunwald-Cutter Aortic Valve Prosthesis" (page 250, this issue), malfunction of prosthetic heart valves due to ball or disc "variance" (swelling, wear, or cracking) has lethal potential. The first reports appeared when it was noted that the silicone rubber balls used in the Starr-Edwards model 1000 had some degree of variance in about 70 percent of the cases followed for one year. This happened almost exclusively when the valve was used in the aortic position. Similar findings also were noted in the double-caged Smeloff-Cutter valve and others.

The degenerative process was related to hemodynamic stress and lipid absorption from the blood and was manifested as discoloration, softening, and splitting. A change in the curing process seems to have eliminated this particular problem.

However, as new types of valves were developed, still other types of wear and tear were reported, even in the Teflon® disc of the Beall prosthesis, and the Delrin® ring of the Bjork-Shiley valves. In the Wada-Cutter valve the problem was so serious that elective removal was recommended at the earliest indication of variance.

The latest valve discs are constructed of pyrolite carbon and titanium A70, which apparently has solved some of these problems. Pyrolite carbon is an extremely hard, inert, and non-thrombogenic material. Since the new disc material is stronger than the titanium housing, some wear in the valve struts may occur. This already has been reported as thinning of the struts on the DeBakey Surgitol® valve.

Naturally, the problems of variance are not present in the so-called biological tissue valves (homografts or porcine heterografts) which now are used more frequently. Here, other degenerative processes are known to occur. It probably is fair to say that no valvular prosthesis is free of problems, but fortunately the incidence of difficulty appears to be diminishing.

The clinician has to be aware of the possibility of variance in a patient wearing a prosthetic valve in which the problem has been known to occur. When the patient complains of lightheadedness or fatigue, and when hemolytic anemia is documented starting several months to years after implantation, a thorough investigation must be carried out. It is important to note the quality of the valve sounds, and especially to look for beat-to-beat variation in sound intensity and quality. Phonocardiography, echocardiography, and angiocardiography might be required serially to elucidate changes more objectively. Some authors recommend replacement of a prosthesis if the opening aortic sound is less than half the amplitude of the closing sound (Ao/Ac ratio less than 0.5). Fluoroscopy might be of help nowadays because some recent valves have radio-opaque markers incorporated in them to facilitate study of the excursion of the poppet or disc.

In a symptomatic patient in whom variance has been documented, elective replacement of the prosthesis should be considered seriously and urgently. In rare instances, even when the poppet has extruded and embolized, surgical intervention has been carried out successfully. Consequently, it is important to recognize this clinical entity, because, strangely enough, there may be sufficient time for an alert surgical team to carry out emergent valve replacement.

Isaac Gielchinsky, M.D.

Clinical experience & continuing confidence

KAON® ELIXIR was introduced in **1954,** followed by KAON® TABLETS in **1963.** Decades of clinical experience indicate acceptability, effectiveness, and safety in the majority of patients; should abdominal pain occur, therapy should be discontinued. Both have been taken by patient after patient, day after day, year after year, to correct potassium deficiencies. Both have consistently demonstrated their value when diet alone is inadequate for potassium replacement.

Kaon® Elixir
(potassium gluconate)

Kaon® Tabs
(potassium gluconate)

BRIEF SUMMARY
Kaon Tablets/Kaon Elixir

KAON® (potassium gluconate) TABLETS

Description: Each sugar-coated tablet supplies 5 mEq. of elemental potassium (as potassium gluconate 1.17 Gm.). Kaon Tablets are sugar coated, not enteric coated, which favors dissolution in the stomach and absorption before reaching the small intestine where the lesions with enteric potassium chloride have occurred. The sugar coating merely adds to palatability and ease of swallowing, not to delay absorption as does the enteric coating.
Indications: Oral potassium therapy for the prevention and treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.
Contraindications: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause.
Warning: There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides or certain other oral diuretics. These small-bowel lesions have caused obstruction, hemorrhage and perforation. Surgery was frequently required and deaths have occurred. Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Coated potassium tablets should be used only when adequate dietary supplementation is not practical.
Precautions: In response to a rise in the concentration of body potassium, renal excretion of the ion is increased. With normal kidney function, it is difficult, therefore, to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentra-

Time is the test of all things



tions of potassium ion may cause death through cardiac depression, arrhythmias or arrest. This drug should be used with caution in the presence of cardiac disease.

In hypokalemic states, especially in patients on a salt-free diet, hypochloremic alkalosis is a possibility that may require chloride as well as potassium supplementation. In these circumstances, Kaon (potassium gluconate) should be supplemented with chloride. Ammonium chloride is an excellent source of chloride ion (18.7 mEq. per Gram), but it should not be used in patients with hepatic cirrhosis where ammonium salts are contraindicated. Other sources for chloride are sodium chloride and Diluted Hydrochloric Acid, U.S.P.

It should also be kept in mind that ammonium cycle cation exchange resin, sometimes used to treat hyperkalemia, should not be administered to patients with hepatic cirrhosis.

Adverse Reactions: Nausea, vomiting, diarrhea and abdominal discomfort have been reported. The symptoms and signs of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of QRS complex, changes of the S-T segment, tall peaked T waves, etc.

Overdosage: Potassium intoxication may result from overdosage of potassium or from therapeutic dosage in conditions stated under "Contraindications." Hyperkalemia, when detected, must be treated immediately because lethal levels can be reached in a few hours.

KAON® (potassium gluconate) ELIXIR

Description: Each 15 ml. (tablespoonful) supplies 20 mEq. of elemental potassium (as potassium gluconate, 4.68 Gm.) with saccharin and aromatics. Alcohol 5%.

Indications: See Kaon Tablets.

Precautions: See Kaon Tablets.

In hypochloremic alkalosis, potassium replacement with potassium chloride (e.g., Kaochlor® 10% Liquid) may be more advantageous than with other potassium salts.

Adverse Reactions: See Kaon Tablets.

Overdosage: See Kaon Tablets.

WARREN-TEED
LABORATORIES, INC.
DIVISION OF **ADRIA LABORATORIES INC.**
COLUMBUS, OHIO 43215



EMPIRIN®
COMPOUND
c̄ CODEINE

Each tablet contains aspirin, 227 mg; phenacetin, 162 mg; and caffeine, 32 mg; plus codeine phosphate in one of the following strengths: #4–60 mg (gr 1); #3–30 mg (gr ½); #2–15 mg (gr ¼); and #1–7.5 mg (gr ⅛). (Warning—may be habit-forming). C III

Wellcome | Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

THE PAGE AND WILLIAM BLACK POST-GRADUATE SCHOOL OF MEDICINE of the MOUNT SINAI SCHOOL OF MEDICINE (CUNY)

Announces a Postgraduate Course

ADVANCES AND CURRENT CONCEPTS IN GYNECOLOGIC ONCOLOGY

Mount Sinai School of Medicine Faculty:
Saul B. Gusberg, M.D., D. Sc. (Med.), Carmel Cohen, M.D., Course Directors. Gunter Deppe, M.D., James Holland, M.D., Robert Wallach, M.D.

Guest Faculty:
Sidney Arje, M.D., Hugh R.K. Barber, M.D., Louis R.M. Del Guercio, M.D., Henry Clay Frick II, M.D., Jimmie Holland, M.D., Robert N. Hoover, M.D., Ralph Richart, M.D., Howard Ulfelder, M.D.

May 18, 19, 1978 - Thursday and Friday
9:00 AM to 5:00 PM (2 Sessions)

An intensive review of current concepts in Gynecologic Oncology by institutional and outside faculty. This intensive review course will be designed to offer an up to date analysis of diagnosis and treatment of gynecologic tumors, for all obstetricians and gynecologists.

Modern diagnostic and therapeutic modalities will be presented by authorities in each area with a forecast of future developments as they pertain to clinical practice. There will be adequate time for the discussion and consideration of common problems in treating patients.

FEE: $200. ($50 House Staffs)

This course will be given at the Mount Sinai Medical Center, New York City, New York

APPLY TO: Director, The Page and William Black Post-Graduate School of Medicine, Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, New York 10029.
Tel.: (212) 650-6737.

A New and Successful Technique of Suspending a Completely Prolapsed Vaginal Stump

HAZEL LIN, M.D., Jersey City*

A new procedure, which is an easy and sure way of suspending a completely prolapsed vaginal stump is presented. There was no mortality, morbidity, or recurrence in eight patients on whom this operation was performed.

Completely prolapsed vaginal stump after an abdominal or vaginal hysterectomy can be most distressing to the patient. She not only has walking and sitting difficulties but disturbed bladder and bowel functions as well. Normal sexual intercourse is almost impossible. A careful review of the literature disclosed the following standard methods of treatment:

1. **Complete Colpocleisis**—A circular incision is made on the vaginal outlet in the region of the carcunculae myrtiformes. The anterior vaginal mucosa is dissected free to the top of the vagina. Then, the posterior vaginal mucosa too is dissected free. The flaps are removed. The vagina is obliterated with a series of continuous sutures placed transversely. Finally, the vagina is closed vertically with interrupted sutures. This procedure was advocated for elderly or debilitated patients.

2. **Ventral Fixation of Vagina: Brady**—A median incision is made from the umbilicus to the symphysis. The fascia and the peritoneum are divided in the upper half on the incision. The vagina is pushed upward into the abdominal cavity by an assistant. Three medium-sized braided silk sutures are introduced into the top of the vaginal vault. These sutures are carried out through the parietal peritoneum. The anterior sheaths of the rectus muscles are exposed. The sutures are carried through the fascia below the lower end of the fascial incision. The two ends of each of these sutures are then tied together, thus fixing the vagina to the fascia with three nonabsorbable mattress sutures, one in the midline and two lateral to it.

3. **Suspension of Vagina with Preserved Fascia Lata of Ox: Ward**—The peritoneal cavity is entered through a median subumbilical incision. The intestines are packed away. One strong suture of preserved ox fascia lata in a Koontz fascia needle is placed through the vaginal vault on the right side and the latter then is worked beneath the peritoneum laterally and anteriorly to the region of internal abdominal ring. It is made to pierce the rectus muscle and the sheath. The fascia is carried under the peritoneum by running the large needle under the peritoneum, then bringing it out and reinserting it in the large needle hole, continuing subperitoneally. This is carried out step by step until the fascial strip has been brought to the desired point.

The other end of the first suture, attached to the vaginal vault, then is threaded into a Koontz fascia needle, and in a similar subperitoneal manner it is carried anteriorly under the peritoneum of the bladder to the symphysis region. It is made to pierce the rectus muscle and its sheath and then is anchored to the anterior surface of the fascia. The ends of the fascia strips are sutured to the fascia with fine black-silk sutures.

This procedure is repeated on the opposite side so that

*Dr. Lin is associated with the Gynecology Department at Greenville Hospital, Jersey City. Correspondence may be addressed to Hazel Lin, M.D., 1887 Kennedy Boulevard, Jersey City 07305.

finally the vagina is supported by four fascial strips.

4. **Uterosacral Ligaments Fixation: Miller**—The anterior vaginal wall is first opened and flaps of fascia dissected out in preparation for performing a radical cystocele repair.

The scar tissue then is excised from the apex of the vagina, and the peritoneal cavity is opened at the same time. The dissection of the mucosal and fascial flaps laterally and the opening of the peritoneal cavity permit ready access to the intrapelvic structures. A No. 2 chromic catgut suture is passed through the peritoneum and the underlying fascial and muscular structures at the base of the sacro-uterine ligament, approximately one and one-half inches below the promontory of the sacrum on the right side.

The same procedure is then carried out on the left side. A good amount of the fascial tissue is included in passing each of these lifting sutures. Then the cystocele is repaired.

For the past eleven years I have suspended a completely prolapsed vaginal vault by the following method on eight patients. There was no morbidity, no mortality, and no recurrence. (Table)

PROCEDURE

The patient is prepared in the usual manner as for a laparotomy. The peritoneal cavity is entered through a medial subumbilical incision. Then the table is tilted to a marked Trendelenberg position. The loops of the intestines, especially the sigmoid colon, are carefully packed away with laparotomy pads. The vaginal cuff is pushed into the abdominal cavity by a sponge on a long ovum forceps. Then the apex of the vaginal cuff is held up with a traction suture. Beginning from the base of the vagina a series of concentric purse-string sutures of No. 0 silk are placed so as to pass through the posterior vaginal wall including only the serosa and the muscularis layers. The needle picks up the parietal peritoneum and the periosteum of the sacrum. Usually, eight to ten successive sutures are sufficient to reach the summit of the vagina and the promontory of the sacrum. When these sutures are tied the vagina will be firmly anchored to the sacrum. Then, three or four No. 0 silk sutures are placed between the lateral walls of the vagina and the stumps of either the tubo-ovarian or infundibulo pelvic ligaments. The abdominal wall is closed in layers.

DISCUSSION

Careful review of the literature on the techniques of suspending a completely prolapsed vagina have failed to disclose the present procedure described anywhere. Although the term vaginal sacropexy had been mentioned, the technique was not at all similar to the one described above. A review of the operative procedure by a number of authoritative surgeons produced the following comments through personal communication:

"The procedure suggested by Dr. Lin sounds like a good one, providing the rectum can be safely displaced to the left side, and should reestablish and maintain a normal vaginal depth and axis in patients with prolapse of the vagina.

"When a transabdominal route is selected, the procedure of Dr. Lin seems to have produced good results in her hands,

Table: Results of Operation

Case No.	Age	Previous Surgery	Duration of Prolapse	Previous Treatments of the Prolapse	Date of Present Technique of Suspension	Length of Hospitol Stay	Date of Last Fallow-Up
I	58	Vaginal Hysterectomy in 1962	2 Years	Miller's Uterasacral Ligament Suspension Failed	1-24-65	7 Days	10-25-75 No Recurrence
II	51	Total Abdominol Hysterectomy in 1962	2 Years	None	2-3-65	8 Days	3-17-76 No Recurrence
III	50	Total Abdaminol Hysterectomy in 1958	5 Years	Brady's Ventral Fixotian Foiled	5-23-66	7 Days	9-29-76 No Recurrence
IV	58	Total Abdaminol Hysterectomy in 1962	2 Years	Was Advised Calpacleisis But Refused	5-16-72	8 Doys	5-17-76 No Recurrence
V	53	Voginal Hysterectomy in 1972	2 Yeors	Nane	1-22-75	7 Doys	8-3-76 No Recurrence
VI	54	Abdaminal Hysterectomy in 1972	2 Yeors	None	2-4-76	8 Days	10-26-76 No Recurrence
VII	58	Vaginal Hysterectomy in 1966	2 Years	Pessory	2-24-76	7 Doys	1-6-77 No Recurrence
VIII	61	Vaginal Hysterectomy in 1967	5 Years	Pessary Erosion of Vaginol Mucosa	1-12-76	7 Days	1-24-77 Na Recurrence

though the choice of an absorbable synthetic polyglycolic suture might lessen the chance of chronic postoperative infection with draining sinus formation that is always a risk with silk sutures in the vagina, or if a permanent suture is desired, dacron with or without a teflon coating might be useful." Nichols, D.H., State University of N.Y. at Buffalo.

"Dr. Lin has put her finger on the specific weakness of vaginal repair operations for treatment of procidentia. The uterosacral ligaments on whose support the vagina primarily depends in usual vaginal hysterectomy and repair for procidentia are by overstretching the atrophy, usually so tenuous that they have little or almost no supportive value. In view of these facts, Dr. Lin's operation of suturing the vagina to the periosteum of the sacrum makes excellent sense in obtaining adequate vault support.

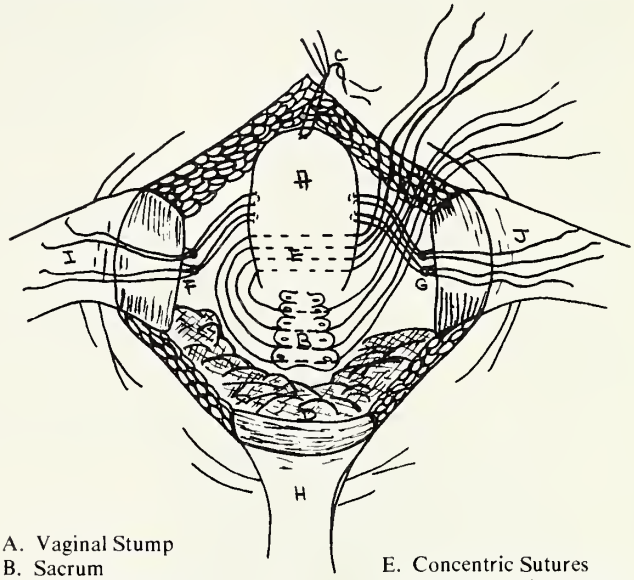
"Dr. Lin is to be congratulated upon the ingenuity of her approach to a problem which is clearly not solved adequately by the standard method of vaginal hysterectomy and repair." Shute, W.B., Ottawa, Canada.

"The conventional method for the surgical correction of a prolapse of vaginal vault, where it is important to conserve a functioning vagina, has been ventral fixation of the top of the vaginal vault to the rectus sheath, either with braided silk or with preserved fascia lata of the ox. I have reviewed the literature and find no reference of suturing the vagina to the sacrum. I also questioned my colleagues if they knew of such a procedure; the answer was negative.

"The results of Dr. Lin's operation speak for themselves. It would be helpful to have a more complete description of the operation, together with drawings of the procedure." Benis, G.G., New York, New York.

REFERENCES

1. Miller F: New method of correcting inversion of the vagina with or without complete prolapse: Two cases. *Surg Gynec Obstet* 44:551, 1927.
2. Brady L: Operation to correct genital prolapse following vaginal panhysterectomy. *Am J Obstet Gynec* 32:295, 1936.
3. Ward E: Ox fascia lata for reconstruction of round ligaments in correcting prolapse of vagina. *Arch Surg* 36:163, 1938.
4. Ob-Gyn Collected Letters—International Correspondence Society of Obstetricians and Gynecologists, May 15, 1977—Series XVIII, Page 75.



A. Vaginal Stump
B. Sacrum
C. Traction Suture
D. Laparotomy Pads
E. Concentric Sutures
F, G. Stumps of Ligaments
H, I, J. Balfour Retractors

ASSIGNMENT OF COPYRIGHT

In compliance with the Copyright Revision Act of 1976 (effective January 1, 1978) a transmittal letter or a separate statement accompanying material offered to *The Journal* of the Medical Society of New Jersey must contain the following language and must be signed by *all* authors:

"In consideration of *The Journal* of the Medical Society of New Jersey taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to the Medical Society of New Jersey, in the event that such work is published in *The Journal*, MSNJ."

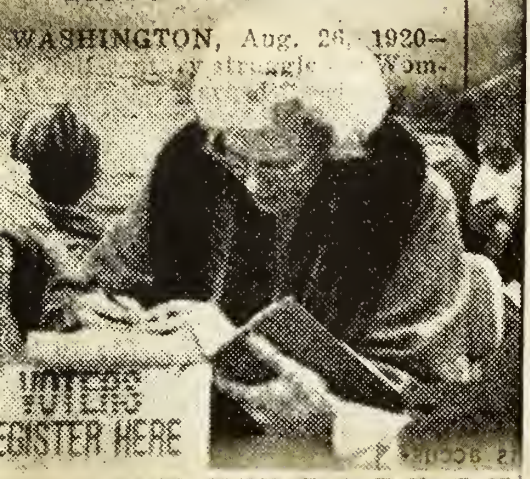
Individuals, universities, libraries, and other non-profit organizations will be permitted to photocopy articles in *The Journal* for non-commercial, educational purposes.

COLBY PROCLAIMS WOMAN SUFFRAGE

Signs Certificate of Ratification at His Home Without Women Witnesses.

MILITANTS VEXED AT PRIVACY.

Wanted Movies of Ceremony, But Both Factions Are



Social Security Bill Is Signed; Gives Pensions to Aged, Jobl

Roosevelt Approves Message Intended to Benefit 30,00 Persons When States Adopt Cooperating Laws–He C the Measure 'Cornerstone' of His Economic Progra

WASHINGTON, Aug. 14 The Social Security Bill, pr a broad program of unempl insurance and old age pe and counted upon to benef 20,000,000 persons, became day when it was signed by dent Roosevelt in the pres those chiefly responsible f ting it through C[illegible].

Mr. Roosevelt cal[illegible] "the cor[illegible]erstone [illegible] which [illegible] being [illegible] me[illegible]s c[illegible]ple[illegible] ri[illegible]

SENATE APPROVES 18-YEAR OLD VOTE IN ALL ELECTIONS

Amendment to Constitution is Sent to House, Where Passage is Expected

WASHINGTON, March 10, 1971—The Senate approved today, 94 to 0, and sen[illegible]

JUL SIGNI the Draf Ends No



WASHINGTON, Jan. 27, 1973—"With the signing of the peace agreement in Paris today, and after receiving a report from the Secretary of the Army that he foresees no need for

TRUMAN CLOSES TED NATIONS CONFEREN ITH PLEA TO TRANSLATE CHARTER INTO DEEDS

NEW WORLD HOPE

President Hails 'Great Instrument of Peace,' Insists It Be Used

HISTORIC LANDMARK

Meeting Gives Standing Ovation as Executive Pictures Peace Gain

SAN FRANCISCO, June 26, 1945

"If we fail to use it," he declared to the solemn final meeting of the delegates, 'we shall betray all of those who have died in order that we might meet here in freedom and safety to create it.'

"If we seek to use it selfishly—for the advantage of any one nation or any small group of nations—we shall be equally guilty of that betrayal."

Fervent Interpolation

The President, speaking in the auditorium of the War Memorial Opera House, built in memory of sons of the Golden Gate city who gave their lives in the first World War, in which he himself served, seemed to give unconscious expression to the solemn feeling of the occasion when, at the outset of his speech, he interpolated the words, half a hope, half a prayer:

"Oh, what a great day this can be in history!"

Just before the plenary session the President accompanied the eight United States delegates to

PATIENT PACKAGE INSERTS: A CONCEPT WHOSE TIME HAS COME?

The consumer's right to know is an irreversible and desirable trend of the Seventies. It extends, and properly, to a patient's right to know more about his or her prescription medications. One way, gaining favor, is through patient package inserts. Wisely-prepared and properly distributed when medically indicated, they could markedly improve patient knowledge and drug therapy—laudable goals by anyone's standards.

The PMA endorses these goals and will work with government, the health professions and consumers to achieve them.

The Advantages

The concept holds promise of benefits: better patient understanding of the product prescribed, better adherence to the treatment plan, and more awareness of possible side reactions.

Every doctor has had patients who fail to finish antibiotic regimens because they feel better. Some patients assume that if one tranquilizer or analgesic is good, two may be twice as good. Still others fail to report dizziness while on antihypertensive therapy —and so on.

Problems like these might arise less often if the patient received written information in addition to verbal instructions. Some studies suggest that patients are more receptive to such materials, and they more often understand the verbal instructions and follow them, when inserts are used.

The Disadvantages

There are also some potential problems. Obviously, the inserts must be clearly phrased, without extraneous or complex detail. How much information is enough? How can it be kept current? Should all patients receive the same information? Should inserts be included with all drugs? Should only potential problems be listed or are patients better off with a "fair balance" presentation that describes usefulness as well as drawbacks?

These and similar questions require answers, since model inserts have yet to be properly developed and tested. Despite the need for these studies, the FDA is proceeding prematurely with inserts on selected products. We think the Congress is the only place where the matter can be given the proper legal status and direction, particularly since it represents a conceptual change in the legal, medical and social framework of the nation's prescription drug information system.

The Solution

The PMA believes that carefully-devised pilot studies of various kinds of inserts are needed. They should be developed and implemented with full participation by doctors, pharmacists, consumers, communications experts and the drug industry. Such studies will provide reliable pathways to follow, so that inserts will be useful aids to medical practice.

And particularly we think that you should be closely involved in this debate and in these studies and decisions. Otherwise, people with less experience and qualifications may control the purposes, content and use of a tool with considerable promise for improved patient care. It could make a difference in your practice tomorrow, and more importantly, in the health of your patients.

PMA
THE PHARMACEUTICAL MANUFACTURERS ASSOCIATION
1155 FIFTEENTH ST, N W, WASHINGTON, D C 20005

When **impotence** due to androgenic deficiency is driving them apart



Android®-5 Buccal Tabs
Android®-10 Oral Tabs
Android®-25 Oral Tabs

Methyltestosterone U.S.P. – 5, 10, 25 mg.

Additional Indications:
REPLACEMENT THERAPY. When Androgen Deficiency is cause of:

- Male Climacteric
- Eunuchoidism, Eunuchism
- Post-Puberal Cryptorchidism

New Double-Blind Study ANDROID-25 vs. Placebo*

*R. B. Greenblatt, M.D.; R. Witherington, M.D.,; I. B. Sipahioglu, M.D.; Hormones for Improved Sexuality in the Male and Female Climacteric. **Drug Therapy,** Sept. 1976.

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE: Robert B. Greenblatt, M.D.,** and **D. H. Perez, M.D.:** "The Menopausal Syndrome," *Problems of Libido in the Elderly,* pp. 95-101. Medcom Press, N.Y., 1974. **HOW SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

BROWN **THE BROWN PHARMACEUTICAL CO., INC.** 2500 West Sixth Street, Los Angeles, California 90057

REFER TO PDR

Write for Reprints and Samples.

Satellite Genetic Clinic in a Community Hospital*

LUCILLE SCHECHTER, M.S.,
NAOMI BARTNOFF, M.S.,
STEPHEN F. WANG, M.D., Morristown

Retrospective interviews with 39 families who had undergone genetic counseling revealed that reproductive decisions had been influenced by genetic counseling in 28 percent of the families; 53 percent had been reassured by counseling; 47 percent would not have sought counseling in the nearest urban genetic centers because of their locations in distant or unfamiliar cities. It was demonstrated, thus, that a satellite genetic clinic in a community hospital provides valuable services.

The dramatic increase in the knowledge of human genetics during the past decade is demonstrated by a comparison between the 1966 and 1975 editions of the catalogue of genetic diseases, *Mendelian Inheritance in Man*, which shows an increase of greater than fifty percent in the genetic disorders listed.[1] The significance of genetic problems in the general population is shown by a study of 30,603 live-births where 6.1 percent were found to have genetic disease.[2] Approximately one-third of 12,801 pediatric patients admitted to a hospital in the year 1969-1970 had genetic or genetic-environmental disorders.[3]

Diagnosis of genetic disorders has become more precise with improvement of laboratory procedures. Homozygotes for more than 80 inborn errors of metabolism,[4] open neural tube defects,[5] and errors of chromosomal number or structure can be determined prenatally;[6] amniocentesis has been established as a safe procedure.[7] Heterozygotes can be detected for more than 60 autosomal recessive biochemical disorders.[8] New cytogenetic banding techniques have also made possible the recognition of subtle errors of chromosomal structure.[9]

As the knowledge of genetic disorders has increased, so has the possibility of providing this genetic information. Genetic counseling has been defined as the "communication process which deals with problems associated with the occurrence, or risks of occurrence of a genetic disorder in a family."[10] To provide genetic counseling for residents of northwestern New Jersey, a genetic service was established in 1974 at a community hospital (Morristown Memorial), funded in part by the National Foundation—March of Dimes, and is operated under supervision of the Division of Human Genetics of the Department of Pediatrics of the New Jersey Medical School branch of CMDNJ. The service has a full-time genetics counselor (M.S. in Human Genetics).

MATERIALS AND METHODS

In 1975, interviews were held with families previously counseled, to determine whether the satellite unit fulfills a need within the community. The questionnaire interviews were conducted by a genetic counseling graduate student who had no prior knowledge of the counseling.†

Forty-one consultands‡ had attended the clinic from its inception in February, 1974 until July, 1975 when the interviews were conducted. Thirty-nine consultands were invited and all agreed to participate in the study; two could not be located.

RESULTS

Source of Referral—Twenty-seven (69 percent) of the consultands were referred by a physician—11 by obstetrician-

*From the Division of Genetics, Department of Pediatrics, Morristown Memorial Hospital, 100 Madison Avenue, Morristown.
†Questionnaire available on request.
‡"Consultand" refers to the couple or individual who sought counseling.

gynecologists, 8 by pediatricians, 5 by neurologists, one by a plastic surgeon, one by an internist, and one by an orthopedist. Twelve (31 percent) of the consultands were self-referred, having read about the clinic in newspaper articles.

Sociological Data—Social class was separated into five categories according to the occupational role of the head of the household and the number of years of education he had received. It was found that 11 (28 percent) were in Class I (the highest category), 6 (15 percent) were in Class II, 13 (33 percent) were in Class III, 7 (18 percent) were in Class IV, and 2 (6 percent) were in Class V.

Reasons for Referral—The primary reasons that patients came to the clinic were as follows: 18 (46 percent) for prenatal counseling (16 of these had already given birth to a child with a disorder), 10 (26 percent) for diagnosis, 7 (18 percent) for assessment of risks of unaffected siblings passing on a disorder to their progeny, 2 (5 percent) for the etiology of repeated spontaneous abortions, one (2.5 percent) for premarital counseling, and one (2.5 percent) for the risks of living children developing the late onset disorder of a parent.

The ten consultands who came to the clinic to obtain a diagnosis said that they had not come to the clinic desiring more children. Six of the consultands whose primary interest was prenatal counseling required definitive diagnosis of a child's disorder, as did four whose chief goal was learning the risks of unaffected siblings passing on a disorder and two who wanted to know the cause of repeated spontaneous abortions.

Diagnosis—Nineteen consultands were given a new diagnosis or had a presumed diagnosis confirmed. Two consultands had not yet completed their laboratory tests and one consultand refused to have laboratory tests performed. The diagnosis of disorders for 36 of the 39 families interviewed can be seen in Figure 1.

Fifteen (39 percent) of the disorders resulted from multifactorial inheritance, 11 (28 percent) from single gene abnormality, 7 (17 percent) from causes which are not primarily genetic, and 6 (15 percent) from chromosomal irregularity. Two consultand families had more than one disorder.

Reproductive Decisions—Of the 18 consultands who came to the clinic primarily for prenatal counseling, 11 said that they had based their subsequent reproductive decisions upon information received through the genetic service, four said that they had not yet arrived at decisions, and two said that they had based their decisions upon other considerations. Counseling was incomplete for one consultand. Two consultands who had not come to the clinic for the expressed purpose of prenatal counseling changed their family plans based upon the information received.

Emotional Effects of Counseling—Nineteen (53 percent) of the 36 consultands for whom counseling was complete received reassurance. They either had been given a diagnosis more favorable than that which they had expected or had received risks of recurrence less than those anticipated. Learning the diagnosis of a child's disorder was helpful to one family even though the diagnosis carries a guarded prognosis. Knowing the diagnosis (Marfan Syndrome) enabled the family to prepare for the future.

Six (17 percent) of the 36 consultands for whom counseling was complete said that they no longer had overwhelming feelings of guilt or blamed each other for the disorder of a child.

Figure 1 — *Inheritance and Diagnosis*

Patterns of Inheritance	Total	Diagnosis	Number of Consultonds
Multifactorial	15	Anencephaly	1
		Atrial Septal Defect	1
		Cleft Lip and Palate	1
		Congenital Heart Disorder	1
		Cornelia De Longe Syndrome	1
		Hydrocephalus	1
		Laryngotracheoesophageal Cleft	1
		Multicystic Kidney Disease	1
		Multiple Congenital Anomalies	1
		Myelomeningocele	5
		Pierre Robin Syndrome	1
Single Gene	11		
A. Autosomal Dominant	9	Congenital Hemihypertrophy	1
1. Sporadic	7	Idiopathic Hypercalcemia	1
		Morfon Syndrome	1
		Neurofibromotosis	1
		Noonan Syndrome	2
		Waardenburg Syndrome	1
2. Inherited	2	Charcot-Marie-Tooth Syndrome	1
		Large Bowel Polyposis	1
B. Autosomal Recessive	2	Osteogenesis Imperfecta Congenita	1
		Asphyxiating Thorocic Dystrophy	1
Chromosomal	6		
A. Autosomal	5	Trisomy 21	3
		Trisomy 18	2
B. X-Chromosomal	1	Turner Syndrome	1
Primarily Non-Genetic	7	Alopecia Totalis	1
		Emotional Deprivotion	1
		Hypocolcemio	1
		Encephalopathy	1
		Recurrent Infections	1
		Recurrent Spontaneous Abortions	2
	39		39

Location of the Clinic—In spite of the fact that they benefited from their experience at the clinic, when 34 of the consultands were asked if they would have sought counseling in Newark or New York had it not been available at the satellite clinic, 15 (47 percent) said that they would not have. They said that this was because of their fear of traveling to the cities or fear of the expense and time required.

DISCUSSION

The fact that 31 percent of the consultands were self-referred not only shows the importance of publicity for a genetic clinic, but also that patients sometimes feel a need for genetic counseling which their physicians do not anticipate. This need appears to be especially great after the birth of a child with a disease or malformation, for eight (67 percent) of the self-referred clients came after such a birth. Because the birth of a child with a disorder tends to evoke in parents a concern about their future reproduction,[12] genetic counseling should be routine in such cases. Inasmuch as five (31 percent) of the 16 consultands who came for prenatal counseling after the birth of a child with a disorder had two or more children and one (6 percent) had four living children, family size should not be a factor in referral decision.

The disproportionate representation of the upper classes in the clinic population (28 percent in Class I and 15 percent in Class II) might be attributable to the fact that having superior educations, members of these classes are more aware of the genetic implications of diseases and are reached more readily by the media. It has been pointed out that middle class parents are more concerned with the future and lower class parents with the present,[13] and for this reason middle class parents might be more receptive to genetic counseling. Furthermore, members of the lower classes might be deterred from coming to the clinic, and their physicians from referring them, because of the expense involved.[14] An effort should be made to inform the general public and high school students of the advantages of genetic counseling. That a sliding scale of fees is used should be publicized.

Of the 39 consultands to the clinic, 10 (26 percent) came to obtain a diagnosis. Geneticists, familiar with syndromes not seen in ordinary medical practice, have at their disposal specialized laboratory facilities which aid them in making diagnoses. They are aware of subtle physical findings which often are found in genetic disease and hence are more comfortable in making clinical diagnoses.

Of the 36 consultands for whom counseling was complete, 19 (53 percent) received reassurance. For couples who had been given a diagnosis more favorable than that which they had expected or risks of recurrence less than those anticipated, the relief was profound. Anxiety regarding future pregnancies was sufficiently alleviated for nine (25 percent) to decide to have more children. Despite the fact that one family was given a diagnosis (Marfan syndrome) which carries a guarded prognosis, the family said that knowing the diagnosis was helpful because it allowed them to prepare for the future.

Having the clinic conveniently located was important. Fifteen of 34 consultands (47 percent) who were asked about the location said that despite the benefits of counseling, they would not have sought counseling in Newark or New York had it not been available in Morristown. Nine of the 15 had young children (three of whom were handicapped), three had handicapped older children, and one was, herself, handicapped. For them, travel was especially difficult. Of the remaining two, one could not spend time easily away from his job, and the other had not contemplated having more children at the time she sought counseling.

CONCLUSION

Genetic counseling at a satellite clinic in a community hospital helped people to understand the nature and course of the disorder affecting a family member, to adjust emotionally to that disorder, and to make informed decisions regarding family plans. The convenience of the location of the clinic increased its utilization. This study supports the contention that satellite genetic clinics are needed to serve the residents of New Jersey.

REFERENCES

1. McKusick VA: *Mendelian Inheritance in Man,* 4th ed. Baltimore, Johns Hopkins Press, 1975.
2. Trimble BK and Doughty JH: Amount of hereditary disease in human population. *Ann Hum Genet* (Lond) 38:199, 1974.
3. Scriver CR, *et al:* The frequency of genetic disease and congenital malformation among patients in a pediatric hospital. *Can Med Assoc J* 108:111, 1973.
4. Milunsky A and Atkins L: Prenatal diagnosis of genetic disorders. In: *The Prevention of Genetic Disease and Mental Retardation,* ed. A. Milunsky. Philadelphia, Saunders, 1975.
5. Field B, *et al:* Amniotic alpha-fetoprotein levels and anencephaly. *Lancet* 2:798, 1973.
6. Atkins L, Milunsky A, Shahood JM: Prenatal diagnosis: Detailed chromosomal analysis in 500 cases. *Clin Genet* 6:317, 1974.
7. NICHD, National Registry for Amniocentesis Study Group: Midtrimester amniocentesis for prenatal diagnosis: Safety and accuracy. *JAMA* 236:1471, 1976.
8. Nitowsky H: Heterozygote detection in autosomal recessive biochemical disorders associated with mental retardation. In: *The Prevention of Genetic Disease and Mental Retardation,* ed. A. Milunsky. Philadelphia, Saunders, 1975.
9. Dutrillaux B and LeJeune J: New techniques in the study of human chromosomes: Methods and applications. In: *Advances in Human Genetics,* ed. H. Harris and K. Hirschhorn. New York, Plenum Press, 1975, p. 116.
10. Fraser FC: Genetic counseling. *Amer J Hum Genet* 26:636, 1974.
11. Hollingshead AB: *Two Factor Index of Social Position.* New Haven, Privately Printed, 1965 Yale Station, 1957.
13. Allan JL, Townley RRW, and Phelan PD: Family response to cystic fibrosis. *Aust Paediat J* 10:136, 1974.
14. Carr EF and Oppe TE: The birth of an abnormal child: Telling the parents *Lancet* 2:1075, 1971.
15. Kadushin C: Social class and the experience of ill health. *Sociological Inquiry* 34:67, 1964.

A Difference in Theophylline Therapy

micro-pulverized

BRONKODYL® Capsules

brand of theophylline, USP anhydrous



- Blood levels as fast as an elixir
- With minimal gastric irritation*

*Please see complete prescribing information, a summary of which follows.

DESCRIPTION:
Each green and white hard gelatin capsule contains theophylline USP anhydrous, 200 mg., in a micro-pulverized form. Each brown and white hard gelatin capsule contains 100 mg. The elixir contains 80 mg. theophylline per 15 ml. in a 20% alcohol elixir (approximately 20 calories, 0.9 gm carbohydrate per tablespoonful).

ACTION: Theophylline is a methylxanthine which relaxes the smooth musculature of the bronchioles through its inhibition of the conversion of cyclic adenosine monophosphate to adenosine monophosphate by phosphodiesterase. It also has diuretic, cardiotonic, and CNS stimulant effects.

INDICATIONS: Bronkodyl is indicated tor symptomatic relaxation of bronchiolar spasm in the chronic obstructive bronchopulmonary diseases; e.g., bronchial asthma, chronic bronchitis and pulmonary emphysema.

CONTRAINDICATIONS: Bronkodyl is contraindicated in persons known to have had serious idiosyncratic responses to theophylline, its salts, or the other methylxanthines, theobromine, or caffeine and may be contraindicated in peptic ulcer.

WARNINGS: All methylxanthines should be used with caution in children and in others who are currently taking bronchodilator products, especially in rectal dosage form, which may contain theophylline or related drugs.

USAGE IN PREGNANCY: Although theophylline has been used for many years, with no evidence of adverse fetal effect or teratogenicity, its safety in pregnancy has not been established. Therefore use of Bronkodyl during lactation or in women of childbearing potential requires that possible benefits of the drug be weighed against possible hazards to fetus or child.

PRECAUTIONS: Bronkodyl should be used with caution in patients with cardiac or circulatory disease.

ADVERSE REACTIONS: Gastrointestinal: Epigastric distress, nausea, vomiting. Cardiovascular: palpitations. CNS: Insomnia, restlessness, irritability, convulsion.

DOSAGE AND ADMINISTRATION: Adults: Usual dosage of Bronkodyl is 200 mg. every 6 hours (four doses in each 24 hours). This dosage may be adjusted to reflect individual clinical response as an indication of slow or rapid metabolism of the drug. If adverse reactions are encountered, each dose may be reduced, or the interval between doses may be lengthened, or both. If clinical response is not satisfactory, indicating possible rapid inactivation of the drug, dosage may be gradually increased to achieve the desired response. In some instances of either too slow or too rapid metabolism, plasma levels of theophylline should be determined and dosage adjusted accordingly to achieve levels above 10 mcg/ml, but not to exceed 20 mcg/ml.

Dosage in Children: Usual dosage should be based on administration of 10 mg per kg per 24 hours, divided in 4 doses per day, given every 6 hours. As this may not be possible with use of the capsules, Bronkodyl elixir may be used. Theophylline saliva levels (approximately 60% of simultaneous blood levels), may facilitate dosage adjustments, especially in children, to obtain appropriate response.

HOW SUPPLIED:
Bronkodyl 100 mg., brown and white capsules in 100's, Code #1831.
Bronkodyl 200 mg., green and white capsules in 100's, Code #1833.
Bronkodyl Elixir, 80 mg. per 15 ml, in pints, Code #1835.

BREON LABORATORIES INC.
90 Park Avenue, New York, N.Y. 10016

Feasibility of Data Processing for Group Medical Practices

FRANCES MAGDZIAK AND
SUSAN FISHER, Camden

This article describes a research project which investigated the application of electronic data processing (EDP) to group medical practices in southern New Jersey. A number of possible factors influencing the adoption of EDP were tested. Although a preliminary study, the findings indicate that a conventional cost reduction approach was not the main justification for using EDP. Apparently more important in the EDP decision was the improvement offered in data retrieval and handling of patient records.

Electronic data processing (EDP) with its ability to accumulate, compute, store, transmit, and print huge volumes of financial data has revolutionized the business world. This new powerful tool is now employed for record keeping in almost every type of business. One of the last "businesses" to take advantage of the computer is the medical profession. Hospitals were the first in the medical field to convert to computers for the processing of the large amounts of data generated in the financial portion of their work. This was to be expected since manual data processing had become more and more of a problem. As clerical personnel became unionized (or threatened to become unionized) manual data processing had become more and more expensive. For these reasons, the conversion to electronic data processing seemed quite logical.

Now a new entity in the medical profession has gained much popularity. The "professional association," an incorporated physician or group of physicians, is appearing at an increasing rate. Whether such professional associations provide more efficient medical care in the absence of sufficient doctors, regulate the doctors' working hours, or provide protection in numbers from the mounting cost of malpractice insurance, the significant point is that a new, rapidly expanding business has been created. Is this new business a likely prospect for the electronic data processing industry? That is the question this preliminary study is intended to answer. The criterion selected to evaluate this question is volume of transactions since it is in handling large volumes of data that electronic data processing has won most renown.

OBJECTIVE

The objective of this study is to determine the feasibility or desirability of applying electronic data processing techniques to group medical practices in southern New Jersey (specifically Burlington and Camden Counties).

METHODOLOGY

A sample of 42 group practices was selected randomly from the Camden County and Burlington County telephone books. Because of time limitations and the sensitive nature of the quasi-financial data requested, a letter of introduction accompanied by a preliminary questionnaire was sent to the sample group. The purpose of this initial contact was to introduce the researchers and to acquaint the groups with the type of information sought. It was felt that a personal interview with a knowledgeable employee of the group would maximize responses and improve comparability of data

*This study was conducted by students at Rutgers University, Camden, under the direction of Milton Leontiades, Ph.D., Associate Professor of Management at the University, who provided guidance throughout the study; Mr. Paul Rumley was a research assistant on the project. Correspondence may be addressed to Professor Leontiades, Camden College of Arts and Science, Rutgers University, Camden, New Jersey 08102.

sought. When personal interviews could not be arranged, the researcher conducted a telephone interview, if possible.

LIMITATIONS

(1) Virgin territory—A preliminary literature search revealed a dearth of published material pertinent to this topic. Much has been written on computer applications for hospitals, but not for group practices. Telephone contact with approximately a dozen computer service firms in the South Jersey area revealed minimal marketing effort to provide electronic data processing services to group medical practices.

(2) Minimal cooperation—The voluntary nature of the responses limited the amount and accuracy of the data provided. Some respondents viewed computers as threats to their job security. Despite the letter of introduction and preliminary questionnaire, it was not possible to convince some respondents that this was an actual student research project and not a ploy of some computer firm to gather data for further marketing initiative.

(3) Relevancy of questionnaire—The actual questionnaire was based on a professionally constructed study by an extablished computer firm. Additional data were gleaned from "informational pamphlets" distributed by computer firms. This questionnaire was reviewed by several individuals in the computer service field who deemed that it was "more than sufficient" for the study being conducted. In actuality, sections of the questionnaire such as purchasing and inventories proved irrelevant to the group medical practices sampled.

(4) Respondents' lack of compiled statistical data—In many instances there was not one clerical individual familiar with all aspects of office procedure investigated by the questionnaire. Additionally, many of the groups surveyed do not maintain any statistics on activity.

DATA

Schedule 1 is a tabulation of responses to the questionnaire. Tabulated data is incomplete due to the inability of the respondents to provide all information in all cases. Designations P, Q, and R represent responses to the preliminary questionnaire only. These offices did not wish to participate in the study but were willing to provide this basic data. Sections of the questionnaire relating to inventories and purchasing have been omitted from the tabulations due to lack of relevancy.

Summarized information is as follows:

Individual contacts		42
Responses:	Preliminary questionnaire	3
	Detailed questionnaire	15[a]
Groups currently utilizing EDP		3
Groups not utilizing EDP		15
Groups considering EDP		1

[a]A 36% response rate.

DISCUSSION

While medical associations have taken on many of the trappings of the business world, i.e., incorporation, professional office buildings, receptionists, and secretaries, the conversion has not been complete. The lack of knowledge of office procedures and activity levels and unfamiliarity with general accounting terms made it impossible to get the required data in some cases. Peculiar office procedures and subjective billing rates made data difficult to interpret in other cases. The study revealed a lack of correlation between the size of the association, either as measured by the number of doctors or the number of patients seen per month, and the amount of clerical hours required to handle the data generated. The range for the doctor-clerical personnel relationship extends from three doctors with twelve full-time plus part-time clerks to nine doctors with twelve clerks. The range for doctor-patient relationship extends from three doctors with two thousand patients per month to nine doctors with one thousand patients. This lack of correlation makes it extremely difficult to appraise the feasibility or desirability of using electronic data processing without a detailed, in-depth study of individual groups. It is possible that there may be some correlation between the doctors' specialty and the

SCHEDULE 1

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Basic Group Data:																		
No. of Physicians	5	3	2	5	5	3	4	8	9	2	3	4	2	4	2	2	4	1
No. of Clerical Emp.	2	2+PT	2+PT	4	1+PT	12+PT	8	16	12	3+PT	6+PT	4	2+PT	4+PT	3+PT	3+PT	2	2+PT
Total No. of Emp.	7	8	5	12	2	16	8	24	21	5	8	9	5+PT	6	6			
No. of Patients/Month	280	1200	350	2200	600	2000	2200	2000	1000	1350	2000	2200	1000				1800	400
Have EDP	No	No	No	No	No	Yes	Yes	Yes	No	No	No	No	No		No	No	No	No
Have Considered EDP	No	No	No	No	No	N/A	N/A	N/A	Yes	No	No	No	No		No	No	No	No
Financial Data:																		
Billing – Volume	500	200	400	300	600	1300	500	4000	1500	400	300	500	250	400	300			
– Clerical Hours/mo.	25	16	4	18	28		8	4	104	68		35	3	5	4			
Accts. Rec. – Volume	500	400	600	200	250	1300				200		500	260	600	500			
– Clerical Hours/mo.	80		40	8			8		32			80	32	45	40			
Accts. Pay. – Volume	60	60	30	25	42		40					50	25	20	40			
– Clerical Hours/mo.	2	16	1	4			8		48			25	1	1	1 1/2			
General Ledger – Self/Cntr.	Cntr	Self	Self	Both	Self	Cntr	Cntr		Self	Cntr		Cntr	Cntr	Cntr	Both			
– Clerical Hours/mo.		8	6	5	50				16									
Activity Statistics Maintained					Yes	Yes	No		No				Yes					
– Clerical Hours					8	EDP							Vari					
Payroll – No. of Employees	7	8	5	12	2	16	8	24	21	5	8	9	5	6	6			
– No. of PR's/Month	2	2	4	4	4	4	2	4	4	5	4	4	2	4	2			
– No. of Pay Rates	7	3	4	12	2	8	8	24+	21	4	8	6	5	6	6			
– Contributory-Pension	No	No	No	No	No	No	No		Yes	No	No	No	No	No	Yes			
– Contributory Grp. Ins.	No	Yes	No	No	No	No	No		No	No	No	No	No	No	No			
– No. of State Taxes	2	1	1	1	1	1	1		1	1			1		1			

number of clerical personnel required to process the data and paperwork. This preliminary study did not include enough samples with the same specialty to be able to determine if any such correlation does exist.

Perhaps the most significant finding is that data processing specialists from two different companies have stated that cost/benefit is not the major criterion for making the decision to convert to electronic data processing. This opinion was confirmed by one association included in the study. This association expressed an interest in converting to electronic data processing. Our respondent felt that the major benefit would be efficiency of data retrieval. There was a significant amount of time lost searching for temporarily misplaced patient ledger cards. With the conversion this lost time would be avoided.

COST STUDIES

Two studies compared costs of computer services to costs of personnel needed to process clerical data for approximately 1700 patients per month (the average number of patients seen by the groups surveyed). Although costs varied between computer services, total cost to the groups for the first year of operation was greater if they opted for the computer service. Likewise, in a cost study of an in-house computer, the researchers found monthly operating costs comparable to computer service costs, but an added advantage of immediate accessibility to the computer along with the current investment tax credit of 10 percent of purchase price.

CONCLUSION

Are medical group practices a likely prospect for the electronic data processing industry? The researchers feel that the data included in this study are sufficient to answer the question but not on the basis of the criterion originally selected.

The answer is yes. The basis for this conclusion, however, is not an immediate cost/benefit to the group as originally assumed, but rather as better patient service. This results from efficient data retrieval either as entered or in some desired revised form, accuracy, especially of retrieved data, and speed. Whatever cost/benefits are to be realized to the group will occur in the future when the same-sized clerical staff will be able to handle an increased volume of data as the association grows.

The structuring and execution of this study has been complicated by the fact that this is a relatively untouched area. In future studies, participation of a larger group practice population with the cooperation of the medical society would be recommended. Additionally, comprehensive input from one or more computer companies must be guaranteed to provide the expertise needed to convert clerical time to computer time.

"Texas physicians report on a self-administered peritoneal dialysis system...Dr. Salk protests widespread news reports of imminent cure for multiple sclerosis...a survey of malpractice cases uncovers the most common causes of claims...Canadian cardiologists offer a technique for diagnosing angina caused by coronary-artery spasm...the IRS is clamping down on tax shelters but some programs still work...CT scanning is shown to detect hidden abdominal injuries resulting from auto accidents.."

Important things are happening that you should know about right away. You'll find them on your desk every two weeks in Medical World News, the newsmagazine of medicine.

Read this one first.

medical world news

A McGraw-Hill publication

McGraw-Hill

REVIEW ARTICLE

Pathophysiology of Focal Cerebral Ischemia and the Rationale of Surgical Management

ROGER W. COUNTEE, M.D., Newark*

To appreciate the rationale of operative procedures for occlusive cerebrovascular disease, one must understand the functional anatomy of the cerebral circulation, the pathophysiology of cerebral ischemia, and the significance of angiographic abnormalities. The appropriate surgical procedure must be matched with the appropriate patient. The ultimate effectiveness of operation depends on meticulous assessment of the patient's abnormal cerebrovascular physiology, and the technical skill of the surgeon.

Cerebrovascular disease or "stroke" is the third leading cause of death and a major cause of disability in the United States today. Though stroke often is thought of as a disease of the aged, one-fourth of its victims are under the age of 65.[1,2] Statistics alone cannot reflect the staggering financial and emotional burden imposed by nonfatal but crippling strokes upon its ravaged survivors and their families. Stroke and its consequences, however, must no longer be considered as unavoidable or as an inevitable vexation of advancing age. In fact, such is not the case.

Since there is no therapeutic maneuver that will return infarcted brains to life, the primary thrust of our therapeutic efforts should be toward prevention of needless death and avoidable morbidity. Surgical therapy, like medical management, must be regarded then as primarily a prophylactic measure. Indications for the various surgical procedures are evolving. An understanding of the pathophysiology of cerebral ischemia helps us to determine the physiological significance of various structural lesions seen angiographically and is necessary to appreciate the rationale of operative therapy.

FOCAL CEREBRAL ISCHEMIA VS. TOTAL CEREBRAL ISCHEMIA

The brain constitutes only about 2 percent of the total body weight yet it receives approximately 15 percent of the cardiac output and utilizes about 20 percent of the oxygen consumed by the body. This enormous demand for blood and oxygen requires a smoothly functioning delivery system. An acute impairment of the delivery system can cause unconsciousness within 20 seconds and irreversible central nervous system damage within four to eight minutes. Focal cerebral ischemia from the occlusion of a single major or minor vessel supplying the brain is not the same as total or global cerebral ischemia (as from cardiac arrest or the clamping of all major thoracic vessels) or anoxia (as from respiratory arrest). In focal ischemia the flow of blood in a central zone may be undetectable, but some flow is maintained in surrounding zones.

The size and severity of cerebral infarctions can vary considerably. In experimental animals as well as in humans, occlusion of individual vessels in the neck or on the surface of the brain may not result in clinically evident ischemia or neuronal dysfunction. Modifying factors such as the status of the collateral channels, the microcirculation of the brain, autoregulation, hypoxia, blood pressure, blood volume, anesthesia, and others exert an influence which determines the ultimate outcome.

THE COLLATERAL CIRCULATION

The brain is endowed with a large and elaborate system of

*From the Department of Surgery, Section of Neurosurgery, CMDNJ, New Jersey Medical School, Newark, New Jersey. Correspondence may be directed to Dr. Countee at New Jersey Medical School, CMDNJ, 100 Bergen Street, Newark 07103.

collateral arterial pathways which exist in three main areas: (1) through extracranial anastomoses in the cervical region and at the base of the skull; (2) through developmental or persistent embryonic arterial connections between cervical and intracranial vessels; and, (3) through intracranial and cerebral arterial anastomoses.[3] The intracranial cerebral arterial collaterals, likewise, occur in 3 main regions: (1) through connections of the conducting vessels at the base of the brain (Circle of Willis); (2) through connections between the perforating vessels to the basal cell masses; and, (3) through inter-arterial leptomeningeal anastomotic channels. All intracranial collateral circulation of any significance occurs on the surface of the brain before the arteries actually enter into the substance of the brain.

Variation in the pattern and patency of the collateral pathways is the rule. Moreover, though these pathways may be anatomically present, they are often small and insufficient as immediate sources of collateral supply. In more slowly developing major arterial occlusions, however, there is time for small pathways to enlarge and become adequate sources of alternative blood supply. Correlation between abnormalities of the collateral circulation and clinically symptomatic cerebrovascular disease is striking.

THE MICROCIRCULATION AND CEREBRAL BLOOD FLOW

The microvasculature, the microcirculation of the brain, and their role in the "autoregulation" of cerebral blood flow are currently the focus of much investigation. In a restricted sense, "autoregulation" has come to denote a particular type of pressure/flow relationship in which the vessels of an organ have the ability to maintain blood flow in that organ at relatively constant levels despite rather wide changes in systemic perfusion pressures. The blood vessels of the normal brain represent such an example.

Cerebral blood flow (CBF) is stable despite alterations of mean systemic arterial blood pressure in the range from 60 to 160 mm. Hg. Moderate changes in intracranial or venous pressure likewise do not influence CBF. Changes in cerebral arteriolar caliber effect changes in cerebral vascular resistance and consequent changes in CBF. This may be caused by a direct response of the smooth muscle of the vessel walls to intraluminal pressure or by changes in local concentrations of certain metabolites, or drugs, or trauma. Neurogenic influences from the autonomic nervous system may also influence arteriolar caliber. Autoregulation and its consequent changes in cerebral vascular resistance occur in seconds to minutes after changes in perfusion pressures.[4] If perfusion pressure drops, cerebral arterioles immediately dilate to decrease cerebral vascular resistance and enhance blood flow to the brain. In contrast, rapid pronounced increases in systemic blood pressure are associated with constriction of cerebral arterioles and an increase in cerebrovascular resistance. Cerebral vasodilatation or vasoconstriction may be generalized or focal. Prolonged constriction may result in ischemia. When the vessels are dilated, prolonged and severe increases in systemic pressure then may be directly transmitted to cerebral capillaries with transendothelial passage of water, electrolytes, proteins, and so on causing focal or generalized edema, secondary ischemia, and cellular changes.

The ability of the brain to regulate its blood supply in accordance with its needs is an extremely important property in understanding cerebral vascular pathophysiology. This property resides in the penetrating arterioles of the brain which enter the brain parenchyma at right angles to the surface vessels from which they are derived. In concert they regulate total CBF or even more specifically, regional CBF. In the waking state changes of the functional activity of the brain such as mental arithmetic or concentration do not produce detectable increases in total CBF. Regional cerebral blood flow (RCBF), however, does respond to changes in cerebral activity. Examples include increases in RCBF in the occipital cortex with stimulation of the retina by light, in the motor cortex with exercise of an extremity of the other side of the body, and in appropriate cortical association and sensory regions during mental activity.[5] These changes in RCBF, in response to neuronal function, probably are mediated by local changes in pH and different metabolites.[6] It is unlikely that local changes in oxygen concentration are responsible for local regulation of CBF because far more oxygen is available to neurons than is utilized.[7]

Normal RCBF approximates 50 ml/100 gm. of brain tissue/min. $\pm$ five percent[5] which is in excess of neuronal needs since the brain can accommodate to a substantial reduction in flow and continue to function. Laboratory and clinical studies show that neuronal function, as measured by cortical electrical activity, is not impaired until RCBF decreases to approximately 18 to 20 ml/100 gm/min.[5-8] Although normal electrical activity cannot be equated with normal cerebral function, the electroencephalogram has proved to be a sensitive monitor of cerebral ischemia.[9]

All neuronal function stops when RCBF falls to 17 to 18 ml/100 gm/min. If this persists for more than a few minutes structural damage of brain tissue becomes manifest in humans, baboons, and cats.[7] The size and severity of experimentally induced cerebral ischemia can vary considerably, and, though the neurological deficits produced are often inconsistent, there is always an associated marked reduction in RCBF to the areas of manifest neuronal dysfunction. Patients with these low flow rates often are neurologically unstable and particularly vulnerable to the effects of any further reductions in flow by arterial emboli, systemic hypotension, hypoxia, and so on. If perfusion is reestablished in time, neuronal function may resume, although neuronal activity may be abnormal. Thus neurological deficits may be completely reversed in some instances, or may not be appreciably lessened or modified at all. The duration and severity of additional insults will determine whether they are manifested as transient focal cerebral ischemia or permanent and irreversible infarctions. As yet, electrical studies have not determined the maximum duration of a period of ischemia from which a neuron can recover.

Ischemia and infarction lead to failure of the mechanisms regulating the cerebral circulation ("autoregulation"). The normal pressure-flow regulatory mechanisms may be severely impaired and RCBF may become completely passively dependent on systemic perfusion pressures. Episodic drops in the systemic pressure-head further may compromise areas of brain already functioning on marginal RCBF and produce transient focal neurological deficits in one or both cerebral hemispheres. Cerebral autoregulation may recover days to weeks after the onset of ischemia, or not at all.[8,10]

THE PHYSIOLOGICAL SIGNIFICANCE OF STRUCTURAL LESIONS SEEN AT ANGIOGRAPHY

Extracranial Vessels—The carotid and vertebral arteries in the neck and thorax are common sites of atherosclerosis,

a disease of large and medium-sized muscular arteries. Obstructive lesions of these vessels have received a great deal of attention as a treatable cause of focal cerebral ischemia since Eastcott, Pickering, and Rob first reported relief of intermittent cerebral ischemia by operative correction in 1954.[11] Though stenotic lesions of these vessels have been the great concern, obstruction is not the more frequent problem in their ability to produce transient focal cerebral ischemia.

The volume of blood flowing in a major artery is normally much less than the volume the artery is capable of carrying. In humans as well as in experimental animals carotid artery flow can more than double with the occlusion of the contralateral carotid.[12,13] Even over prolonged periods there is only minimal dilatation of the vessel.[14] Local constriction of an artery, on the other hand, causes little change in blood flow until a marked and critical degree of stenosis is reached.[15] Thereafter, further reduction in lumen size rapidly reduces flow and distal blood pressure in the vessel. The length of the stenosed area influences the point of critical stenosis.[16] A long arteriosclerotic plaque, will reach the point of critical stenosis faster than a very short plaque. A 70 percent decrease in diameter and a 90 percent reduction in cross-sectional area is accepted widely as the degree of stenosis that causes significant changes in blood flow and distal pressures in a vessel.[8,15] This may not reduce regional cerebral blood flow at all, however. Carotid endarterectomy on lesions of less than 90 percent stenosis may greatly increase flow in the carotid artery. However, it does not increase regional cerebral blood flow.[9] Consequently, a high degree of stenosis seen at angiography or even total occlusion of a single extracranial or intracranial vessel is usually not physiologically significant in terms of reduction in RCBF. If such lesions are combined with occlusive lesions in other parts of the collateral cerebrovascular circuit—extracranial or intracranial—they then take on physiologic significance regarding the impairment of cerebral perfusion.

Although CBF may remain normal with these single vessel lesions, there is reduced reserve in the circulation of the ipsilateral hemisphere. This defective reserve may become apparent only when it is challenged by factors which would demand further cerebral arteriolar dilatation. Examples include moderate systemic hypotension, hypoxia, hypercapnia, or obstruction of a second vessel in the collateral circuit. The cerebral circulation is vulnerable then to stresses it previously would have tolerated with ease. Combinations of these stresses are by no means unusual in clinical practice and a relatively modest abnormality in more than one of these relevant stress factors may result in symptomatic cerebral ischemia.

The single highly stenotic lesion associated with a normal collateral circuit most often expresses its physiological significance as a source of microemboli. Ulcerations of the intimal surface of cervical vessels are the source of these emboli. Large ulcerations easily are visualized angiographically and often frank intraluminal thrombus can be seen. Angiographic lesions frequently are difficult to interpret, however. Houser and associates[17] analyzed the extracranial and intracranial angiographic patterns compared with surgical specimens removed at carotid endarterectomy in 322 patients. Virtually all patients with carotid bifurcation plaques with less than 85 to 90 percent stenosis had ulcerations identified at operation which were felt to be the most likely cause of their symptoms. Angiographic visualization of the ulcerations in the highly stenotic lesions was poor. Similarly, Correll[18] found intimal ulcerations in 80 percent of 370 carotid arteries operated upon for high grade stenosis. He also reported on 30 patients with less than 20 percent stenosis angiographically and only minimal deformities at the carotid bifurcation. Because their clinical picture was thought most compatible with disease from the extracranial carotid arteries, carotid endarterectomies were performed. Intimal thickening and ulcerations of varying degrees were found at surgery and were thought to explain best the clinical picture. None of his patients had recurrent symptoms over a seven-year follow-up. A recent paper by Olinger graphically depicts the variegated appearance of atherosclerotic plaques at the carotid bifurcation and gives insight into the wide spectrum of disease in the arterial lumen which may look deceptively benign at arteriography.[24]

The same embolic mechanism is presumed to occur in the vertebro-basilar system. There are, however, many well-documented cases of vertebro-basilar focal ischemia resolving after carotid endarterectomy. One attractive explanation for this is based on the fact that, with obstructive lesions in the anterior (carotid) circulation, velocity and flow in the vertebro-basilar system must increase markedly to compensate as collateral supply. Flow in this system normally is of slower velocity and its nutrient branches come off at right angles to the parent artery. According to Bernoulli's principle,[a] a rapid flow in the parent artery would lessen pressure in the branches. When the vertebro-basilar system is used as a collateral channel and has a consequent rapid flow, ischemia of the brainstem can be induced.

Intracranial Vessels—Atherosclerosis rarely involves intracranial vessels smaller than the major named branches of the internal carotid and vertebral arteries. Small embolic fragments and diseases that have a predilection for smaller arteries and arterioles, e.g., diabetes, hypertensive arteriolarsclerosis, collagen vascular diseases, and so on may be associated with small vessel occlusions on cerebral angiograms. In general, however, the intracranial arteriographic picture in focal ischemic disease is quite variable. Proximal occlusions of the named branches of the major cerebral arteries are not seen commonly[17] but when present are identified easily angiographically. Focal slow flow patterns and distal cerebral branch occlusions are more difficult to distinguish angiographically.[19] Each probably is due to an embolic fragment.[20] Retrograde arterial filling, reactive hyperemia, early filling veins, and vascular as well as avascular masses may be seen.[19,21] Intraluminal lesions of the carotid siphon[22] as well as large saccular aneurysms of intracranial vessels[23] have been reported as sources of microemboli and causes of small vessel occlusions.

RATIONALE OF SURGICAL MANAGEMENT

Extracranial Surgery—When lesions in the cervical vessels are felt to be the source of microemboli to the brain the goal of carotid or vertebral endarterectomy is to remove this source of emboli. The partially obstructed cervical vessels associated with stenoses or occlusions in other parts of the cerebral collateral circuit are operated on to improve cerebral perfusion. The techniques of carotid and vertebral endarterectomy are well established. Literally thousands of these procedures have been done. In properly selected patients and in experienced hands, the results have been most gratifying and the operative mortality and morbidity have been quite

[a] Bernoulli D: Hydrodynamica. *Argentorati*, 1738.

acceptably low. Early surgical intervention in an effort to restore perfusion to the acutely ischemic brain has not met with unqualified success, however. Opening acutely thrombosed extracranial or intracranial arteries associated with major neurological deficits often has led to worsening of ischemic cerebral edema and the development of hemorrhagic infarctions, both of which lead to an increase in the neurological disability as well as the risk of death. Likewise, attempts at reestablishing flow in chronically occluded extracranial vessels generally have been unsuccessful. Multiple vessel occlusions in the neck, or in combination with occlusions of major intracranial vessels, have not proved amenable to surgical reconstitution and resumption of blood flow.

Microvascular Bypass Surgery – Many patients who have multiple cerebrovascular occlusions, either intracranial and/or extracranial, will continue to have symptomatic transient focal cerebral ischemia before they go on to develop major infarctions. Patients in whom the occlusive lesions in the neck are deemed inoperable or the intracranial obstructive lesions are surgically inaccessible are estimated to represent about 20 percent of all patients presenting with transient focal cerebral ischemia. This represents about 14,000 Americans per year.[25] In these patients, the symptoms of recurrent episodic focal ischemia are thought to be due to episodic hemodynamic insufficiency in areas of intact brain sustained by marginal RCBF. To augment surgically the collateral blood supply to the brain in such patients without permanent major neurological deficits may afford significant protection against further episodes of cerebral ischemia.

In 1967, Yasargil and Donaghy conceived and performed the first arterial anastomosis between an extracranial branch of the external carotid artery and a cortical branch of the middle cerebral artery in an effort to augment collateral blood supply to ischemic areas of the brain.[26,27] The procedure involves an anastomosis between vessels of 1.0 to 1.5mm. in diameter using the operating microscope. Over the past ten years more than 2,000 similar procedures have been performed[28] and long-term patency rates of 90 percent have been reported.[25,28,29] This microvascular bypass operation is now emerging from a decade of development and the technique has proved to be a safe procedure in the hands of experienced neurosurgeons. Though the initial results are encouraging, the procedure suffers fundamentally from being able to deliver only small volumes of blood to the affected hemisphere.

Lougheed, in 1971, described a long bypass from the extracranial to intracranial carotid circulation which is capable of delivering large volumes of blood to the hemisphere and to the whole brain.[30] His operation has not gained wide acceptance, however. Although technically feasible, the procedure requires interruption of cerebral blood flow for uncomfortably long periods, prolonged patency is less certain, and early occlusion of the bypass has been frequent.

The specific criteria for patient selection for these bypass procedures, the ultimate effect of the procedure in long-term follow-up of the patients, as well as the operative mortality and morbidity rates require further evaluation. These microvascular techniques, however, certainly are past the experimental stages and currently are very much a part of the surgical armamentarium for the treatment of focal cerebral ischemia.

SUMMARY

Because the brain is endowed with a tremendous arterial collateral circuit and the ability to "autoregulate" its blood supply, a single vessel stenosis or occlusion in one of the major neck vessels infrequently results in significant impairment of cerebral blood flow and consequent signs of cerebral ischemia. The single extracranial vessel stenosis most frequently causes symptoms by generating microemboli from eroded and ulcerated intimal lesions which often are difficult to identify arteriographically. Multiple stenoses or occlusions of cerebral vessels take on much more physiologic significance regarding the impairment of cerebral blood flow.

Operative therapy on extracranial vessels is primarily aimed at removing lesions which are sources of microemboli to the brain. Highly stenotic lesions when combined with other lesions in the cerebrovascular collateral circuit are removed to improve cerebral perfusion. Chronically occluded extracranial and intracranial vessels have not been amenable to reconstitution in the majority of instances. Patients with these lesions often have impaired autoregulation of CBF rendering cerebral perfusion a passive function of systemic blood pressure. Regions of brain functioning on marginal blood flow may be affected critically by transient alterations in systolic blood pressure, hypoxia, hypercapnia, and so on, and may manifest themselves as episodic focal neurological deficit.

Microsurgical procedures have been designed to bypass extra and intracranial obstructive lesions and augment collateral blood supply to areas of marginal RCBF. In these situations transient focal ischemia is thought to result from intermittent hypoperfusion rather than microemboli. Surgical therapy on extracranial vessels is a well-established therapeutic modality. Microvascular anastomosis is an established surgical technique and the preliminary clinical experiences are very promising.

The ultimate effectiveness of any of the operative measures depends on a meticulous assessment of each individual patient's abnormal cerebrovascular physiology. The appropriate surgical procedure must be matched with the appropriate patient based on the particular pathophysiologic mechanism(s) operative in his individual case. Surgical therapy, like any other form of therapy for focal cerebral ischemia, must be viewed in the proper context as primarily a prophylactic measure. There is no therapeutic maneuver which will return infarcted brains to life.

REFERENCES

1. Stallones RA, Dyken ML, Fang HC, *et al:* Epidemiology for stroke facilities planning. *Stroke* 3:360-371, 1972.

2. Kurtzke John F: Epidemiology of cerebrovascular disease. In: *Cerebrovascular Survey Report for Joint Council on Cerebrovascular Disease,* R. S. Siekert, ed. N.I.N.C.D.S. and National Heart and Lung Institute, Rochester, Whiting Press, 1976.

3. Kaplan HA: Collateral circulation of the brain. *Neurol* 11:15, 1961.

4. Kindt GW, Youmans JR, Albrand OW: Factors influencing the autoregulation of the cerebral blood flow during hypotension and hypertension. *J Neurosurg* 26:299-305, 1967.

5. Lassen NA, Munch O: The cerebral blood flow in man determined by the use of radioactive Krypton. *Acta Physiol Scand* 33: 30-49, 1955.

6. Sundt TM Jr, Michenfelder JD: Focal transient cerebral ischemia in the squirrel monkey: Effect on brain adenosine triphosphate and lactate levels with electrocorticographic and pathologic correlation. *Circ Res* 30:703-712, 1972.

7. Waltz AG: Pathophysiology of cerebral infarction. *Clin Neurosurg* 23:147-154, 1975.

8. Waltz AG: Circulatory factors pertinent to problems of cerebrovascular disease. In: *Cerebrovascular Survey Report for Joint Council Subcommittee on Cerebrovascular Disease,* R. G. Siekert,

ed. N.I.N.C.D.S. and N.H.L.I. Rochester, Whiting Press, 1976.

9. Sundt TM Jr, Sharbrough FW, Anderson RE, Michenfelder JD: Cerebral blood flow measurements and electroencephalogram during carotid endarterectomy. *J Neurosurg* 41:310-320, 1974.

10. Waltz AG, Sundt TM Jr: The microvasculature and microcirculation of the cerebral cortex after arterial occlusion. *Brain* 90:681-696, 1967.

11. Eastcott HG, Pickering GW, Rob CG: Reconstruction of internal carotid artery in a patient with intermittent attacks of hemiplegia. *Lancet* 2:994, 1954.

12. Boysen G: Cerebral hemodynamics in carotid surgery. *Acta Neurol Scand* 49 (Suppl. 52):1-84, 1973.

13. Youmans JR, Kindt GW: Influence of multiple vessel impairment on carotid blood flow in the monkey. *J Neurosurg* 29:135-138, 1968.

14. Lehrer HZ: Cervical internal carotid artery caliber. The effects of intracranial arterial spasm. *Acta Neurochir Scand* 45:183, 1969.

15. Mann FC, Herrick JF, Essex HE, Baldes EJ: The effect on the blood flow of decreasing the lumen of a blood vessel. *Surg* 4:249-252, 1938.

16. Kindt GW, Youmans JR: The effect of stricture length on critical arterial stenosis. *Surg Gynec Obstet* 128:729-734, 1969.

17. Houser OW, Sundt TM, Holin CB, Sandok BA, Burton RC: Artheromatous disease of the carotid artery. Correlation of angiographic, clinical and surgical findings. *J Neurosurg* 41:321-331, 1974.

18. Correll JW: Non-stenotic lesions of the extracranial carotid arteries causing stroke and the results of surgical treatment. Presented at the 45th Scientific Session of the American Heart Association, Dallas, Texas, November, 1972.

19. Waddington MM, Ring BA: Syndromes of occlusions of middle cerebral artery branches: angiographic and clinical considerations. *Brain* 91:685-686, 1968.

20. Ferris EJ, Shapiro JH, Shah JR: Cerebral angiography after arteriolar embolization: Angiography in the acute phase in the monkey. *Invest Radiol* 4:1-12, 1969.

21. Taveras JM, Gilson JM, Davis DO, *et al:* Angiography in cerebral infarction. *Radiol* 93:549-558, 1969.

22. Taveras JM, Wood EH: Occlusive and stenotic lesions. In: *Diagnostic Neuroradiology*. Baltimore, Williams and Wilkins, 1964, pp. 691-718.

23. Antunes JL, Correll JW: Cerebral emboli from intracranial aneurysms. *Surg Neurol* 6:7-10, 1976.

24. Olinger CP: Carotid artery endoscopy (autopsy). *Surg Neurol* 7:7-13, 1977.

25. Chater N: Patient selection and results of extra to intracranial anastomosis in selected cases of cerebrovascular disease. *Clinical Neurosurg* 23:287-309, 1976.

26. Yasargil MG: Experimental small vessel surgery in dogs including patching and grafting of cerebral vessels and the formation of functional extra-intracranial shunts. In: *Microvascular Surgery*, RMP Donaghy, MG Yasargil, eds. St. Louis, Mosby, 1967, pp. 87-126.

27. Donaghy RMP, Yasargil MG: Extra-intracranial blood flow diversion. Presented at the American Association of Neurological Surgeons. Chicago, Ill., April, 1968.

28. Yasargil MG, Yonekawa Y: Results of microsurgical extra-intracranial bypass in the treatment of cerebral ischemia. *Neurosurg* 1:22-24, 1977.

29. Sundt TM Jr, Siekert RG, Piepgrass DG, *et al:* Bypass surgery for vascular disease of the carotid system. *Mayo Clin Proc* 51: 677-692, 1976.

30. Lougheed WM, Marshall BM, Hunter M, *et al:* Common carotid to intracranial internal carotid bypass venous graft. Technical note. *J Neurosurg* 34:114-118, 1971.

NEW YORK FERTILITY RESEARCH FOUNDATION, INC.

For the Investigation of
Problems of Human Infertility

The Institute provides a complete diagnostic and consultation service for infertile couples. Investigations are conducted by well-known specialists in conjunction with consultants in the various fields of medicine related to infertility.

Patients are returned to the referring physician after appropriate studies have been made, together with a complete detailed report of the findings of the Institute and its consultants and recommendations for therapy. Literature on request.

123 East 89th Street, N.Y., N.Y. 10028

Phone: TR 6-9300

Officially Endorsed by *The Medical Society of New Jersey*

a new group major medical program for Doctors

- LOW RATES
- BROAD COVERAGE
- OPEN ENROLLMENT – JUNE

For More Information Contact
Donald F. Smith and Associates

Research Park, 1101 State Road • Princeton, New Jersey 08540 • (609) 924-8700 or (201) 622-6046

Underwritten by New Jersey Blue Cross-Blue Shield.

Legionnaires' Disease in New Jersey

ALEXANDER M. ACKLEY, Jr., M.D.
JOHN J. TAMBASCIA, M.D., Princeton*

A New Jersey resident developed Legionnaires' Disease. This disease should be included in the differential diagnosis of atypical pneumonia. Diagnosis depends on acute and convalescent serum titers although pleural fluid cultures may be rewarding. Erythromycin may be effective therapy. The reservoir and epidemiology of the causative bacterium presently is unknown.

Serum specimens from a New Jersey man hospitalized for pneumonia in March 1977 have revealed a seroconversion to the agent of Legionnaires' Disease. This is the first and thus far only case reported in New Jersey.

CASE REPORT

A 57-year-old man was admitted to The Medical Center at Princeton on March 21, 1977 complaining of fever, shaking chills, and generalized myalgias of three days duration. He had no headache, cough, rash, or arthralgias.

The patient had a murmur of aortic insufficiency attributed to acute rheumatic fever in childhood and had taken quinidine irregularly for two years for premature ventricular contractions. He took prophylactic oral penicillin tablets during the winter months. He was otherwise in excellent health; he worked in a New Brunswick, New Jersey wire mill and had not traveled out of this state in recent weeks. He had no unusual toxic or chemical exposures or changes in his routine activities in the three weeks prior to admission. He chews tobacco, but he does not smoke.

Physical examination revealed temperature 105.6°, pulse 100, respiratory rate 24, and signs of right lower lobe consolidation. The murmur of aortic insufficiency was unchanged and the rest of his examination was unremarkable. Laboratory studies revealed hemoglobin 13.0, white blood count 12,500, 82% PMN's, 15% bands, and 3% lymphocytes. Chest x-ray showed right lower lobe pneumonia with an air bronchogram. Arterial blood gas values were PO_2 57, PCO_2 22 on room air. Induced sputum was scanty and nondiagnostic. Cold agglutinins were negative on three occasions.

Therapy with penicillin G. was started. During the first week, he had spiking temperatures of 103° to 105° and a dry cough. Except for a small pleural effusion, his pneumonia did not progress. Despite temperatures of 104° to 105°, his pulse was never over 100.

Bronchoscopy on the seventh hospital day revealed only mucosal inflammation. His liver function tests, which were normal on admission, were noted to be abnormal with bilirubin 2.2, SGOT 103, and alkaline phosphatase elevated to twice normal. On the eighth day of high fever, penicillin was discontinued and erythromycin lactobionate (Erythrocin®) in dosage of 500 mg. every four hours was started. His temperature promptly fell and in 48 hours he was afebrile; he subsequently received two grams of erythromycin base orally for ten days.

The patient lost 25 pounds (from 170 to 145), and he had a slow but full symptomatic recovery. Chest x-ray two months later showed slight scarring of the right lower lobe and

*From The Medical Center at Princeton's Department of Medicine. Dr. Ackley is Assistant Professor of Medicine, Division of Infectious Diseases and Immunology, and Dr. Tambascia is Assistant Clinical Professor of Medicine at Rutgers Medical School, CMDNJ, Piscataway. The authors may be addressed at The Medical Center at Princeton, Princeton, New Jersey 08540.

pulmonary function tests show some obstructive and restrictive changes compared to the values obtained on routine examination in the past. All liver function tests slowly reverted to normal. Liver biopsy on the 24th day showed micronodular cirrhosis, and some loss of parenchymal cells and infiltration with lymphocytes. These changes were interpreted as the result of a superimposed, acute, nonspecific hepatitis. Besides antibiotics, the only medications given were quinidine sulfate 800 mg. and quinidine gluconate 325 mg. daily until the seventh hospital day, and Tylenol® during the first week.

Comparison of sera from March 23 to April 13 showed no titer change for influenza, parainfluenza, adenovirus, and mycoplasma. Serum tested at the Center for Disease Control, Atlanta, Georgia, showed a rise from less than 1:32 to 1:512 for Legionnaires' Disease bacterium by the indirect fluorescent antibody method.

DISCUSSION

During the summer of 1976, an outbreak of severe respiratory disease occurred in Philadelphia, chiefly among those who had attended an American Legion convention in that city July 21-July 24, 1976. An estimated 180 cases of this illness which has come to be known as Legionnaires' Disease occurred. There were 29 deaths.

A previously unrecognized and still unnamed bacterium subsequently has been shown to be the etiologic agent.[2] The organism is a gram-negative, moderately pleomorphic bacillus, which initially was isolated from lung tissues of three fatal cases of the Philadelphia outbreak.[3] The isolation was accomplished by intraperitoneal inoculation of guinea pigs, which developed a febrile illness. Spleen suspensions were inoculated into yolk sacs of embryonated hen's eggs. The embryos died after four to six days and light microscopy of Gimenez-stained smears of the yolk sacs revealed the organisms. Subsequently the organism has been isolated from three other cases of pneumonia[6] and has been grown on artifical media[4], including a commercially prepared chocolate agar (Gibco).[5]

Evidence for the etiologic role of the isolate is based on rising antibody titers to the organism in acute and convalescent sera of the afflicted patients. Indirect fluorescent antibody staining method has shown greater or equal to four-fold seroconversion or positive titers (greater than or equal to 64) in 80 of the 117 sera tested from Philadelphia cases suspected of being Legionnaires' Disease on epidemiologic grounds.[2]

Similar serologic data has produced evidence that the organism was etiologic in an outbreak of acute pneumonia at a hospital in Washington, D.C. in 1966.[2] It also appears that an outbreak of an acute, two-to-four-day febrile illness with minor respiratory symptoms in Pontiac, Michigan in 1968 was caused by an antigenically related agent.[3]

As of July 1977, cultural and serologic data have implicated the Legionnaires' Disease bacterium in a few cases of pneumonia in widely separated states.[6] In one instance the organism was isolated from pleural fluid.[5]

Cases of Legionnaires' Disease have had a fairly characteristic course. The illness seems to commence with fever, chills, malaise, myalgias, and in some cases, headache. This is followed by a cough which may be dry and pneumonia which may be severe. The pneumonia may be unilateral or bilateral and consolidation usually is present in an advanced stage. Pleural effusion is not common but has occurred[5]; it was seen and was manifest by chest x-ray in this patient. The mortality has been relatively high, especially in patients with pre-existing cardiopulmonary disease.[7]

The cause of hepatic dysfunction in this case is uncertain. Little has been published regarding hepatitis and Legionnaires' Disease although apparently elevated SGOT values have been recognized.[8] This man did receive quinidine prior to the onset of his liver function test abnormalities. Quinidine has been recognized as a rare cause of drug-induced hepatitis.[9] In the only such case biopsied the histologic changes were granulomatous; such changes were not present in this patient. However, whether his hepatitis was quinidine-related or represented a specific or nonspecific reaction to his infection is unknown. He has not been re-challenged with quinidine.

An additional interesting finding in this case was the marked temperature-pulse differential. This phenomenon has been recognized with other atypical pneumonias[10] and, in fact, was a major factor in deciding to switch his therapy to erythromycin to cover mycoplasma pneumoniae.

Accumulated information from chart reviews, *in-vitro* antimicrobial susceptibility testing, and *in-vivo* protection studies indicates that erythromycin also may be an effective drug against Legionnaires' Disease.[11] Consistent with that, this patient showed an abrupt drop in fever when erythromycin was given.

The source of the organism in both the known outbreaks and the sporadic cases presently is unknown. Person-to-person transmission has not been reported. Investigation by the Center for Disease Control continues and a publication of their findings is expected shortly.

SUMMARY

A New Jersey resident developed Legionnaires' Disease. This disease should be considered in cases of atypical pneumonia. Diagnosis depends on acute and convalescent serum titers although pleural fluid cultures may be rewarding. Erythromycin may be effective therapy. The reservoir and epidemiology of the causative bacterium is presently unknown.

REFERENCES

1. *Morbidity and Mortality Weekly Report.* Atlanta, Center for Disease Control 25:38, October 1, 1976.
2. *Ibid.* 26:2, January 18, 1977.
3. *Ibid.* 26:6, February 11, 1977.
4. *Ibid.* 26:12, March 25, 1977.
5. *Ibid.* 26:14, April 8, 1977.
6. *Ibid.* 26:27, July 8, 1977.
7. *Ibid.* 25:34, September 3, 1976.
8. Focus on the news. *Medical World News* 18:9-10, February 7, 1977.
9. Chajek T, *et al:* Quinidine-induced granulomatous hepatitis. *Ann Intern Med* 81:774-776, December 1974.
10. Grayston J T, Foy H M, Kenny G E: Mycoplasmas (PPLO) in human disease. *Disease-a-Month,* December 1967.
11. *Morbidity and Mortality Weekly Report.* Atlanta, Center for Disease Control 26:20, May 20, 1977.

ADDENDUM

Since this case was submitted, Dr. Ackley and his colleagues at CMDNJ-Rutgers Medical School identified two other patients with Legionnaires' Disease in May and June 1977. Both are middle-aged men who, like the patient described, live in Middlesex County. Characteristically, they had high fevers, severe pneumonias, and minimal cough

with little sputum production. One improved dramatically when erythromycin was started; the other was perilously ill for several days despite administration of erythromycin and gentamycin. Both made full recovery. The diagnoses were made by serology at the Center for Disease Control. Investigation by the New Jersey State Department of Health in cooperation with the Center for Disease Control thus far has failed to reveal any connection between the three cases.

These cases from the same county are the only cases of Legionnaires' Disease known to have occurred in New Jersey. However, the disease is being diagnosed with increasing frequency in several states, and it is probable that other cases have occurred or will occur in New Jersey.

The Center for Disease Control (Atlanta) has had published in *The New England Journal of Medicine* (December 1, 1977) three articles on its investigation of Legionnaires' disease—Fraser D W, *et al:* Legionnaires' Disease: Description of an Epidemic. *N Engl J Med* 297:1189-1197, December 1, 1977. McDade J E, *et al:* Legionnaires' Disease. *N Engl J Med* 297:1197-1203, December 1, 1977. Chandler F W, *et al:* Demonstration of the Agent of Legionnaires' Disease in Tissue. *N Engl J Med* 297:1218-1220, December 1, 1977.

Chronic Ethmoid Sinus Foreign Body

STEPHEN FREIFELD, M.D. AND
JORDAN BURKE, M.D., Summit*

A foreign body which was impacted in an ethmoid sinus for a period of eighteen years presented as purulent nasopharyngeal discharge. To our knowledge this is the first such report. Removal of the foreign body by micro-surgical technique resulted in a cessation of the symptoms.

Foreign bodies implanted in various parts of the body for long periods of time have been reported, but impacted foreign bodies of the sinuses are rare. To our knowledge this is the first report of a longstanding foreign body imbedded in the ethmoid sinus.

In this instance wood was lodged in the right ethmoid sinus from an accident which occurred eighteen years earlier and originally caused blindness in the left eye and a persistent nasopharyngeal discharge.

CASE REPORT

A thirty-year-old man had a history of recurrent purulent nasopharyngeal discharge present for many years, but for five months prior to examination greenish-colored mucus exuded from the nasopharynx and right nares. It was unresponsive to tetracycline. He had been examined previously by an ophthalmologist for a left infraorbital infection which had been refractory to treatment with antibiotics; the drainage appeared to emanate from a fistulous tract. Sinus x-rays and tomograms revealed complete opacification of the right maxillary antrum, the right ethmoids, and reactive obstruction of the right frontal sinuses. (Figure 1)

In 1958 as he stepped on a rotted piece of board and fell, a sliver of wood penetrated through the medial canthus of his right eye. It continued through the nose and severed the left optic nerve resulting in permanent blindness on that side. At the time of the original accident he had an operative procedure to correct proptosis of the left eye and to remove the foreign body. However, no exploration was done on the right side as the portal of entry was very small, did not leave a significant scar, and was never considered to be a problem.

At the time of our initial examination, there was a small purulent bulge in the left lateral infraorbital area with what appeared to be a fistulous tract and slight drainage from this area. The intranasal examination revealed grossly purulent drainage from the right middle meatus. The nasopharynx also showed purulent drainage. A culture however did not reveal any significant organisms. The pertinent findings were confined to the x-rays noted above.

A left orbital exploration, a right Caldwell Luc, and a combined right transantral and intranasal ethmoidectomy utilizing the operating microscope for better visualization were performed. At the time of exploration in the left orbit, no foreign body was detectable, but there were three large pieces of wood in the ethmoid labyrinth on the right side. Two of the fragments were removed through the intranasal route, and one through the transantral approach. (Figure 2) The maxillary sinus itself was full of purulent debris but no other foreign body was discovered.

Two months after the original operation, another piece of wood was extruded spontaneously from the left infraorbital

*Dr. Freifeld is Clinical Assistant Professor of Otolaryngology; Dr. Burke is Clinical Assistant Professor of Ophthalmology, New Jersey College of Medicine, CMDNJ, Newark. Dr. Freifeld may be addressed at 392 Springfield Avenue, Summit 07401.

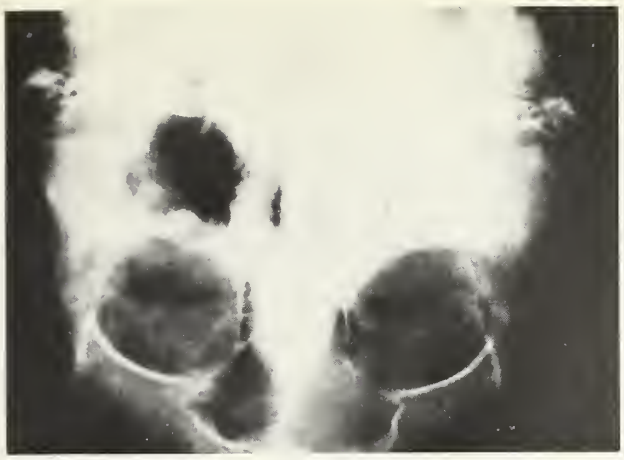


Figure 1—Complete opacity of the right maxillary and ethmoid sinuses.

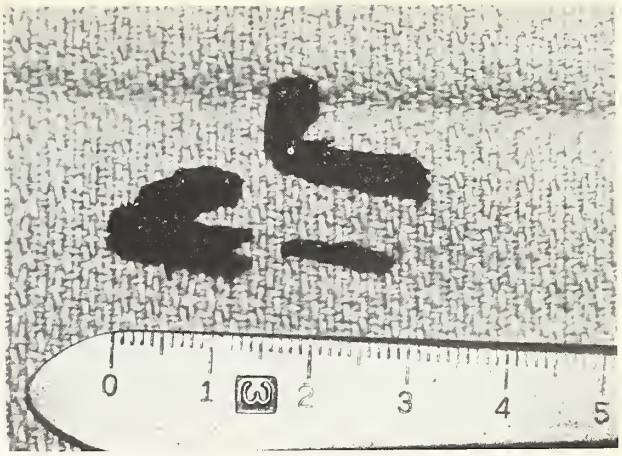


Figure 2—Wood from the right ethmoid sinus.

area; the fistulous tract closed and the drainage subsequently ceased. It is now eighteen months since the surgery and the patient is clinically well. X-rays show minimal residual clouding.

DISCUSSION

The patient presented with a very interesting and challenging problem in that he had a complete opacification of the right maxillary and ethmoid sinus on the side of his only seeing eye. History, physical findings, and x-rays suggested that a foreign body might still be lodged in the sinuses causing obstruction and recurrent infections. However, the suspicion of such a foreign body for eighteen years had not been considered although he had been examined previously by several otolaryngologists and ophthalmologists. Removal of the wooden fragments which appeared reasonably preserved resulted in a complete clearing of the sinusitis and a cessation of the purulent nasopharyngeal discharge. A further extrusion of a small piece of wood from the left infraorbital area two months postoperatively resulted in clearing of that recurrent drainage process.

The clue to his problem lay in the previous history which was important despite the relative unlikelihood of wood being the cause of the presenting problem. Despite the added risk of sinus surgery around the only seeing eye, it was felt that the risk of recurrent ethmoiditis justified that procedure. The operating microscope made control of the procedure more precise, and the combined transantral and intranasal route made exploration of the ethmoid labyrinth safer than with the use of the intranasal route alone.

To our knowledge this is the first such case in which a non-radiographically identifiable foreign body has been imbedded for such a long period of time causing relatively minimal symptomatology. The overriding importance of obtaining an accurate history and of relating these details to the clinical presentation is emphasized.

Fatal Poppet Embolization from a Braunwald-Cutter Aortic Valve Prosthesis

A. OLUSEGUN FAYEMI, M.D.
MAJID ALI, M.D.
EVALYNNE V. BRAUN, M.D.
F. GILROY, M.D., Teaneck*

A 37-year-old man suffered fatal embolization of the Silastic® poppet of a Braunwald-Cutter aortic valve. The prosthesis had been inserted 45 months previously. Postmortem evaluation of the poppet revealed a reduction in its volume and weight. Morphologic evidence of disseminated ball material was present in the liver, spleen, and lymph nodes.

In an attempt to reduce the complications of excessive cloth wear, hemolysis, and thromboembolic episodes, the Braunwald-Cutter valvular prosthesis, employing a thin cloth covering over a metal cage and a Silastic® (silicon elastomer) poppet, was introduced in 1971. Since then, the early and late complications of the Braunwald-Cutter valve have been evaluated in a large series of patients who had undergone mitral, aortic, or multiple valve replacement[1]. Cloth wear has not been diminished considerably by the use of a Silastic® poppet. Similarly, excessive poppet wear with varying degrees of volume reduction has been noted when used in the aortic position, to such an extent as to cause embolization of the poppet. This complication has occurred infrequently, having been reported previously in only two patients.[2] The present communication concerns the fatal embolization of the Silastic® poppet in a patient who had an aortic Braunwald-Cutter valve inserted 45 months previously. Pathological evidence of disseminated poppet material was present in the reticuloendothelial system.

CASE REPORT

A 37-year-old man was admitted to the emergency room because of shortness of breath. The patient was known to have had congenital aortic valvular disease and coarctation of the aorta. The latter was corrected during the patient's childhood. His aortic valve had been operated on thrice, the most recent being the insertion of a Braunwald-Cutter aortic valve prosthesis in May 1972. The patient did well until about one week prior to the final admission, when he developed a flu-like syndrome with fever, cough, coryza, and weakness. He appeared to be recovering uneventfully from this illness when he developed sudden onset of shortness of breath that became progressively worse and was associated with striking pallor, sweating, and weakness.

At admission, he was diaphoretic and shortly thereafter complained of difficulty and inability to move the legs. His blood pressure was 80/70. Laboratory data showed hemoglobin and hematocrit of 9.1gm/dl and 27.8 percent respectively, WBC was 4,000/cu mm with a normal differential. He went into shock, became acutely dyspneic and developed increasing distention of neck veins, retching, and coma. Despite intensive resuscitative measures, he expired three hours after admission. An autopsy was performed.

Pathological Findings—The heart weighed 550 grams. The visceral pericardium was firmly adherent to the myocar-

*From the Departments of Pathology and Medicine, Holy Name Hospital, Teaneck, New Jersey. Dr. Fayemi is Assistant Clinical Professor of Pathology, The Mount Sinai School of Medicine, New York. Dr. Ali is Adjunct Assistant Professor of Pathology, Columbia University College of Physicians and Surgeons, New York, and Dr. Braun is Assistant Clinical Professor of Pathology, Fairleigh Dickinson University School of Dentistry, Teaneck. Correspondence may be directed to Dr. Fayemi at Holy Name Hospital, 718 Teaneck Road, Teaneck 07666.

dium which revealed diffuse fibrosis. There was moderate biventricular dilatation. The mitral, tricuspid, and pulmonic valves were unremarkable. The tissues surrounding the prosthetic valve showed severe calcification. The fabric that covered the struts of the prosthesis was worn through for the full lengths of the three struts, but the fabric covering the orifice was intact. No dimensional changes were noted in the body.[a] One of the struts, however, was bent toward the center of the valve body (Figure 1). Strands of fibrinous material were adherent to the valve body. As determined by the manufacturers of the prosthesis[a] the changes in the poppet were as follows:

	Diameter	Percent Change	Valume	Percent Change	Weight	Percent Change
New Pappet	17.21	–	2.67	–	2.98	–
Patient's Pappet	15.76	−8.46	2.045	−23.3	2.37	−20.4

The aorta showed mild atherosclerosis. The poppet completely occluded the lower segment of the aorta below the origin of the renal arteries (Figure 2).

The right and left lungs, which weighed 1000 and 750 grams respectively, showed moderate acute congestion and severe pulmonary edema. The liver which weighed 2100 grams revealed multiple small nodules, the largest measuring two mm in diameter. The spleen weighed 630 grams, was firm and showed an accentuation of follicular architecture.

Microscopically, the *heart* showed diffuse myocardial fibrosis, chronic pericarditis, and focal organizing myocarditis. The *lungs* revealed congestion and edema, resolving acute bronchitis and focal organizing bronchopneumonia. The lobular architecture of the *liver* was preserved, but granulomatous hepatitis, characterized by lobular necrosis with lymphocytic infiltration and giant cell reaction, was found. The giant cells were of the foreign body type, located in the portal tracts and within the lobules, and frequently contained birefringent amorphous material, presumably derived from the poppet (Figure 3). The *spleen* showed severe chronic passive congestion. Foreign body granulomata, similar to those present in the liver, also were found in the spleen and *lymph nodes* (Figure 4). Occasionally irregular birefringent material was present freely within the sinuses of the lymph nodes; the lymph nodes also showed focal nodal angiomatosis. Acute vascular congestion and tubular hemosiderosis were present in both *kidneys*.



Figure 1—Gross photograph of aortic valve showing absence of Silastic® poppet. The fabric covering the metallic struts is worn in many areas and one metallic strut is bent (arrow).



Figure 2—The lower segment of the aorta showing occlusion by embolized Silastic® poppet.

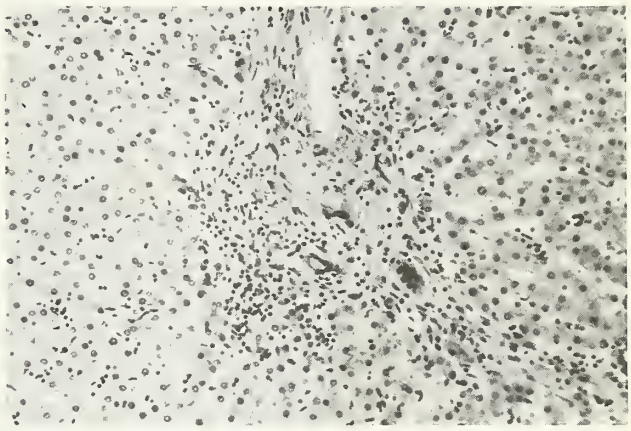


Figure 3—Photomicrograph of the liver showing foreign body granulomata in the portal tracts. Highly refractile foreign bodies are seen in two giant cells. A nonspecific reactive inflammation is present within the liver lobule. (Hematoxylin and Eosin, x100).

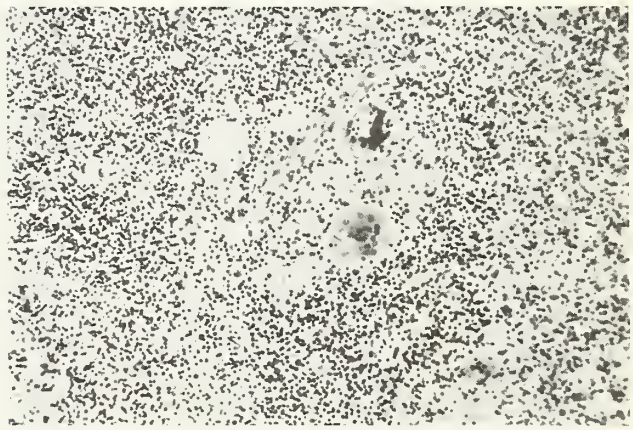


Figure 4—Lymph node showing refractile material lying freely within the sinuses and present within the foreign body granulomata. (Hematoxylin and Eosin, x100).

COMMENT

The incidence of excessive poppet wear in aortic Braunwald-Cutter prosthesis has been estimated at about 1.2 percent. In a large series of patients from the Mayo Clinic, two of eight patients that required reoperation because of exces-

[a]Courtesy of Cutter Biomedical, San Diego, Calif.

sive hemolysis or periprosthetic leak revealed excessive poppet wear; in one of the patients wear was severe enough as to permit embolization.[2] More recently retrograde embolization of the poppet into the left ventricle causing aortic incompetence was described in a 56-year-old woman who had the insertion of the prosthesis 19 months previously. The volume of the poppet had decreased 24 per cent over that period of time.[3] It has been suggested that the Silastic® poppet wear in the aortic position probably results from the abrasive qualities of the fabric-covered prosthetic cage, especially after the fabric is worn out and the metallic struts are exposed.

A search through the literature reveals two reported fatalities as resulting from Braunwald-Cutter poppet wear and embolization. The prosthesis had been inserted 19 and 29 months respectively previous to the patients' demise.[2] Both showed evidence of intravascular hemolysis and signs of recurrent aortic insufficiency. At autopsy, the cloth on the distal third of the struts was worn in both cases; but, while the poppet was lodged at the bifurcation of the aorta in one case, neither the poppet nor its fragments were found in the other. The metal portions of the prosthesis were not deformed or broken.

The case reported here shows some similarity to these two cases. Although intravascular hemolysis was not documented adequately in the patient, indirect evidence that he had chronic hemolysis include a hemoglobin of 9.1gm/dl and the demonstration, at autopsy, of moderately severe renal tubular hemosiderosis, a lesion known to be associated with intravascular hemolysis[4]. Our case more closely resembles case 2 of Pluth *et al.* in that both patients received an A-23 Braunwald-Cutter valve, both developed ischemic symptoms related to the lower extremities and in both the poppet was lodged in the distal aorta below the origin of the renal arteries. Furthermore, they both showed fibrinous vegetation on the valve ring and struts. The fabric that covered the struts was worn more extensively in our patient, a fact probably related to the longer life of the prosthesis.

One feature of particular interest in this case is the presence of birefringent material and foreign body granulomata in many organs including lymph nodes, spleen, and the liver. This feature was not described in the two previously reported fatal cases. However, similar disseminated granulomatous reaction was reported by Hameed *et al.* in a 36-year-old man with ball fracture and fatal embolization in a Starr Edwards aortic valve prosthesis. The dissemination of the material was attributed to the fracture of the ball of the prosthetic valve[5]. The Silastic® poppet in the case reported here, though reduced in weight and volume, did not reveal any noticeable defects or fracture. The scanty fibroblastic proliferation and the presence of free highly refractile and birefringent material within the sinuses and sinusoids of the organs involved suggest vascular dissemination of relatively recent onset, probably measurable in hours. Since these fragments were found within the tissues, we are unable to demonstrate unequivocably that they were derived from the Silastic® poppet. We speculate that constant or intermittent movement of the poppet against the metallic struts immediately before or during the extrusion of the former between the struts or through the valve orifice resulted in dissemination of microscopic fragments of the ball material.

REFERENCES

1. Pluth JR, Broadbent JC, Barnhorst DA, *et al:* Aortic and mitral valve replacement with cloth-covered Braunwald-Cutter prosthesis. A three year follow up. *Ann Thorac Surg* 20:239-248, 1975.

2. Pluth JR, Danielson GK: Poppet embolization in cloth-covered Silastic® poppet valves. *Mayo Clin Proc* 49:811-814, 1974.

3. Kunstadt D, Adeyemo A, Clauss RH: Aortic insufficiency. A result of intermittent migration of aortic valve prosthesis poppet. *JAMA* 235:2847-2848, 1976.

4. Silver MD: Cardiac pathology—A look at the last five years: II. The pathology of cardiovascular prosthesis. *Human Pathol* 5: 127-238, 1974.

5. Hameed K, Ashfag S, Waugh DOW: Ball fracture and extrusion in Starr Edwards aortic valve prosthesis with dissemination of ball material. *Arch Path* 86:520-524, 1968.

This asthmatic isn't worried about his next breath...



he's active
he's effectively maintained on

QUIBRON®

Each capsule or tablespoon (15 ml) elixir contains theophylline (anhydrous) 150 mg and glyceryl guaiacolate (guaifenesin) 90 mg. Elixir: alcohol 15%

- high theophylline for effective around-the-clock therapy
- 100% free theophylline
- individualized theophylline dosage schedule

Indications: For the symptomatic treatment of bronchospastic conditions such as bronchial asthma, asthmatic bronchitis, chronic bronchitis, and pulmonary emphysema.

Dosage: Initial: Adults: 1-2 capsules or 1-2 tablespoonfuls elixir every 6-8 hours; children 8-12: 1 tablespoonful or one capsule every 6-8 hours and children under 8: 3 to 5 mg theophylline/kg body weight every 6-8 hours. Theophylline dosage may be cautiously increased to 2000 mg/24 hr in adults or 7 mg/kg in children; monitoring of serum theophylline levels at higher dosages is recommended.

Precautions: Do not administer more frequently than every 6 hours, or within 12 hours after rectal dose of any preparation containing theophylline or aminophylline. Do not give other xanthine derivatives concurrently. Use in case of pregnancy only when clearly needed.

Adverse Reactions: Theophylline may exert some stimulating effect on the central nervous system. Its administration may cause local irritation of the gastric mucosa, with possible gastric discomfort, nausea and vomiting. The frequency of adverse reactions is related to the serum theophylline level and are not usually a problem at serum theophylline levels below 20μg/ml.

How Supplied: Capsules in bottles of 100 and 1000 and unit-dose packs of 100; Elixir in bottles of 1 pint and 1 gallon.

Mead Johnson

PHARMACEUTICAL DIVISION

© 1978 Mead Johnson & Company • Evansville, Indiana 47721 U.S.A. MJL 6-4220R



Does it influence your choice of a peripheral/cerebral vasodilator*?

- Vasodilan—compatible with coexisting diseases
- Vasodilan—compatible with concomitant therapy
- Vasodilan—compatible with your total regimen for vascular insufficiency

*Indications: Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows:

Possibly Effective:

1 For the relief of symptoms associated with cerebral vascular insufficiency.

2 In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease.

Final classification of the less-than-effective indications requires further investigation.

Composition: Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg.

Vasodilan injection, isoxsuprine HCl, 5 mg., per ml.

Dosage and Administration: Oral: 10 to 20 mg., three or four times daily.

Intramuscular: 5 to 10 mg. (1 or 2 ml.) two or three times daily. Intramuscular administration may be used initially in severe or acute conditions.

Contraindications and Cautions: There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

Parenteral administration is not recommended in the presence of hypotension or tachycardia.

Intravenous administration should not be given because of increased likelihood of side effects.

Adverse Reactions: On rare occasions oral administration of the drug has been associated in time with the occurrence of hypotension, tachycardia, nausea, vomiting, dizziness, abdominal distress, and severe rash. If rash appears the drug should be discontinued.

Although available evidence suggests a temporal association of these reactions with isoxsuprine, a causal relationship can be neither confirmed nor refuted.

Administration of single dose of 10 mg. intramuscularly may result in hypotension and tachycardia. These symptoms are more pronounced in higher doses. For these reasons single intramuscular doses exceeding 10 mg. are not recommended. Repeated administration of 5 to 10 mg. intramuscularly at suitable intervals may be employed.

Supplied: Tablets, 10 mg., bottles of 100, 1000, 5000 and Unit Dose; Tablets, 20 mg., bottles of 100, 500, 1000, 5000 and Unit Dose; Injection, 10 mg. per 2 ml. ampul, box of six 2 ml. ampuls.

U.S. Pat. No. 3,056,836

VASODILAN®

(ISOXSUPRINE HCl)

20-mg tablets

Mead Johnson PHARMACEUTICAL DIVISION

© 1978 MEAD JOHNSON & COMPANY • EVANSVILLE, INDIANA 47721 U.S.A. MJL7-4268

COMMENTARY

THE TRUTH ABOUT NHI*

An advocate of national health insurance from Washington recently wrote a letter to several New Jersey newspapers explaining the reasons his organization favors national health insurance and criticizing the Medical Society of New Jersey.** With characteristic propaganda-style, he used all the wrong explanations and labeled them "the truth." He implied that NHI will do things it patently cannot do, for NHI will not change any of the problems he posed.

Using his points,** the **truths** are as follows:

1. "No countries spend as much for health care as the USA."

Truth: It is also true that no country spends as much as the USA for alcohol, tobacco products, cosmetics, "fast foods" and restaurant meals, and virtually all consumable goods and services. His argument is fallacious since NHI will not change this situation. In fact, the net effect will be an increase in total U.S. health expenditures under any one of the current NHI proposals in Congress.

2. "Babies in 15 other nations have a better chance than American babies to live to age one."

Truth: Ninety percent of the babies who die in the first year of life die in the first seven days after birth while half die on the first day. Most of these deaths result from genetic disorders, congenital anomalies, or fetal injury due to maternal malnutrition and/or exposure to drugs, smoking, and other adverse lifestyle and socio-economic factors during pregnancy. Many of these babies are born of sub-teen and teenage mothers who fail to seek prenatal care.

National health insurance will not change this. It will require major social changes and intensive health education over many generations to do that.

3. "The death rate of nonwhite babies is 68 percent greater than whites."

Truth: This is a product of poverty, nutritional deprivation, social factors, and life-style. It will not change as a result of NHI, but will require a meaningful attack on the social and economic impoverishment of our black citizens. This should be done now, not later.

4. "Sixty-one industrialized countries have national health programs."

Truth: Many industrialized countries are also communistic or socialistic, but that is no reason for a democracy like the United States to "follow the leader." Those countries with national health programs—as exemplified by Great Britain—share our problem of high costs in spite of their controls. The U.S. is the world leader in all fields and should develop a *better* system, not play "copycat." Those same countries are attempting to contain their costs by curtailing health services, which means poorer care in the long run.

5. "Twenty to 30 percent of elective surgery in the U.S. has been found to be unnecessary."

Truth: This is an extrapolation of studies done on a very small number of patients. The question one must answer is: What is elective surgery? It is true that people can walk around with unrepaired hernias, undiagnosed lumps in the breast, asymptomatic gallstones, and lots of cosmetic disorders. One might consider 100 percent of some elective surgery as unnecessary, but how many patients will accept this state of affairs? The truth is, the consumer (patient) *seeks out* the surgery through physician referral or self referral and *agrees* to have the recommended operation. No one forces him onto the operating table and he certainly is encouraged to have second and third opinions.

It is a distortion to state that "the medical profession must be held accountable," in this day of consumers' rights.

6. "Hospital costs are rising so alarmingly that President Carter asked Congress to pass a law holding them in check."

Truth: Hospital costs are going up because of increased utilization, new services resulting from scientific discoveries, inflation, employee wage policies, and the added cost burden of government regulations.

Under national health insurance, the U.S. can expect hospital costs to *continue to rise* because many millions of citizens who have not done so in the past will utilize the hospital. The Medical Society of New Jersey is just as concerned as President Carter.

Unlike the professional lobbyists for national health insurance, the Medical Society of New Jersey is *doing something* about the problems:

1. Infant Mortality—Members of the Society are engaged actively in health education programs against smoking and drug abuse during pregnancy, in genetic counseling programs, in mental health programs to combat child abuse and in programs which encourage early prenatal care. New Jersey physicians have developed fetal and maternal monitoring programs, neonatal intensive care units, and numerous other efforts to reduce infant mortality.

2. Health Costs—The Medical Society of New Jersey is as concerned about health costs as President Carter and Congress. For this reason, members work without pay on utilization review committees in hospitals, develop and participate in health maintenance organizations, work with hospital administrators to contain costs through the use of pre-admission testing, ambulatory diagnostic and therapeutic programs, and so on. They shorten hospitalization through the use of less expensive skilled nursing facilities and home care programs and prevent hospitalization through health education activities.

3. Elective Surgery—This so-called "abuse" is only one of the areas doctors themselves deal with through tissue

*This item appeared in its entirety in *The Sunday Star-Ledger* (Newark), January 15, 1978.

**Fine, M.S.: *The Sunday Star-Ledger,* December 4, 1977.

committees, peer review (Professional Services Review Organization), utilization review, and "second-opinion" programs. More than any other profession, medicine has been in the forefront of continuing education, which is the real means to high quality medical and surgical care.

The fact is that the Medical Society of New Jersey knows that six percent of the total U.S. population is unprotected against health expense. But, 94 percent *is protected* through private insurance (71%), Medicare (10%), Medicaid (8%), and military, V.A., and other programs (5%). The 12.2 million unprotected persons are the "working poor," the unemployed, the under-employed, the self-employed, or those in such poor health as to be uninsurable. Half of them earn less than $10,000 a year per family.†

The Medical Society of New Jersey feels these people should be protected and that all citizens should be safeguarded against catastrophic losses. However, like the American public, we favor *private* rather than government administration of national health insurance with a pluralistic system characteristic of our democratic nation. The present health care system can be expanded to provide services to the poor without federalization of the entire system since that will provide neither the necessary health goals nor contain costs.

National health insurance is not a panacea; it is merely a different method of payment for expanding health services to an increasing number of U.S. citizens.

A. Krosnick, M.D.

†Sudovar, S. G., Jr., Sullivan K: National Health Issues. The Unprotected Population. Roche Laboratories, 1977.

Housing Application

212th Annual Meeting

The Medical Society of New Jersey

May 6–9, 1978

	DAILY RATES		
	Single	Twin	Suites
Holiday Inn	$30	$36	Rates quoted upon
(MSNJ Headquarters)	38	44	request
	46	52	
Howard Johnson's	$30	$36	Rates quoted upon
(Auxiliary Headquarters)	38	44	request
	46	52	

If room is not available at rate requested, next available rate will be assigned

Mail this application directly to the Atlantic City Convention Bureau
16 Central Pier
Atlantic City, N. J. 08401

Please list 1st and 2nd choice; confirmation will come directly from hotel.

1st Choice _____ 2nd Choice _____

Accommodations desired: ☐ Single ☐ Twin ☐ Suite Parlor & 1 Bedroom ☐ Suite Parlor & 2 Bedrooms

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____

Will arrive _____ (DATE) Time _____ Will depart _____ (DATE) Time _____

☐ Check if Official Delegate _____ County

DOCTORS' NOTEBOOK

Trustees' Minutes January 15, 1978

A regular meeting of the Board of Trustees was held on Sunday, January 15, 1978 at the Executive Offices, Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

Amphetamine Protocol . . . Directed that efforts be continued to press the State Board of Medical Examiners for a regulation pronouncement on amphetamines.

Note: The Board of Medical Examiners still contends that the specifics mentioned in the protocol dealing with the prescribing and dispensing of amphetamines are common knowledge. Our Executive Director believes that the State Board has not resolved the Society's concerns as to prospective effect only, which necessitates a rule adoption in accordance with the Administrative Procedure Act, with notification ultimately being sent by the State Board of Medical Examiners to every licensed practitioner affected.

Professional Liability Legislation . . . Noted that the Garramone bills (MSNJ's professional liability bills) terminated with the close of the legislative session and that a meeting is planned for February with the Governor and legislative leaders to have new legislation introduced at an early date.

Laetrile Bill . . . Directed that the following information be obtained in connection with the enactment of the laetrile bill:
(1) Regulations from the State Department of Health and from the State Board of Medical Examiners,
(2) Are the regulations of these two bodies compatible?
(3) The position of the New Jersey State Medical Underwriters as to professional liability coverage with respect to laetrile.

Note: It was agreed that while it is important that the membership be apprised concerning laetrile, a mailing to the membership will not be made until *after* the necessary information is received and the matter has been assessed.

Headquarters Facility . . . Noted that settlement date for the purchase of the new headquarters facility in Lawrenceville is February 6, 1978 and that it is anticipated the move will be made in September. The services of an architect and an interior design consultant have been engaged. The present headquarters building has been viewed by a number of prospective buyers, but no contract has been entered into for sale of the property. A monthly progress report on the new facility and attempts to sell the present headquarters will be given to the Board.

CMDNJ . . . Received as informative a report from Dr. Bergen, President, CMDNJ, which discussed the following items:

1. Certificates of need involved in the removal of tertiary care services from Raritan Valley Hospital to Middlesex General Hospital, and for psychiatric-service beds and a linear accelerator in the new College hospital.
2. The successful marketing of $120,000,000 in bonds at 5.106 percent in fulfillment of the bond referendum passed on November 8, which gives the College resources to retire the current more costly bonds and to provide for construction of new facilities.
3. Negotiations with the housestaff union and with the faculty union. The College is awaiting action on its offer to the former; the faculty union has failed to ratify the agreement endorsed by its negotiating team.

State Board of Medical Examiners' Regulations . . . Took the following action on recommendations from the Judicial Council concerning the proposed regulations of the State Board of Medical Examiners pertaining to the release of patient records, advertising, and solicitation:

1. NJAC 13:35-6.12—Release of patient records: Accepted a recommendation of the Judicial Council for approval of NJAC 13:35-6.12 after amendment by the Board by substituting the word "licensee" for the word "physician" in the proposed rule.

2. NJAC 13:35-6.13—Advertising and solicitation: Accepted a recommendation of the Judicial Council for approval of NJAC 13:35-6.13 after the following amendment—13:35-6.13 (b) delete "fees for routine professional services and other pertinent information about the licensee's practice" and insert *as a new sentence "Fees and other pertinent information about licensee's practice will be available upon specific patient request."* (Italics indicate Board amendment)

. . . Received and noted a resolution from the Mercer County Medical Society which accepts the publishing of information concerning education, certification, hours, location, and availability of physicians' services but not fee schedules (which may be obtained by telephone or appointment).

Publication Committee . . . Approved the following recommendations from the Committee on Publication:
(1) That new graphics which result in an overall increase of usable *Journal* page space by 20 to 30 percent and augment the continuity and simplicity of the appearance of *The Journal* be implemented.
(2) That a request for a $10 *Journal* subscription rate for members of MSNJ be referred to the Committee on Finance and Budget for action.
(3) That a recommendation for a revision of *The Journal* accounting report be referred to the Committee on Finance and Budget for action.

Bylaws—Chapter VI (a) . . . Accepted the majority report (see below) con-

cerning a disputed section of the recently adopted (1977) Bylaws and directed that the Nominating Committee be so notified:

"The House had before it a proposed Bylaw section to which the Reference Committee offered an amendment. The proposed amendment was successfully amended. When voting on adopting the amended amendment despite a favorable majority vote twice, the amended amendment failed apparently of a 2/3 majority and was declared lost by the Speaker. Since the amended amendment was lost, the original language of the proposed Bylaws stood and was adopted by a 2/3 majority vote of the House when the proposed Bylaws as otherwise amended were formally adopted.

"The Committee, therefore, believes that the Bylaws should read as follows:

" 'The terms of office of Delegates and Alternate Delegates shall begin on January first of the year following their election, and shall continue for two (2) years, ending on the second December 31 thereafter.

" 'In the absence of a Delegate, any Alternate Delegate shall be eligible to serve.

" 'No member shall serve more than three two-year terms as an AMA Delegate. Likewise, no member shall serve more than three two-year terms as an Alternate Delegate.' "

(The above opinion is that of the Speaker and Vice-Speaker of the 1977 House of Delegates and the Chairman of the Board of Trustees, three of the five members of the Committee appointed to consider the matter.)

The Board also considered a dissenting opinion from the Executive Director, concurred in by the President of MSNJ, (the two other members of the Committee) that the only matter defeated by the House was the Lehr amendment (the amendment to the Reference Committee amendment).

. . . Directed that the Speaker report this matter to the opening session of the 1978 House of Delegates.

Certificate of Need in Private Practice . . . Received as informative a report from the Chairman of the Board that the Commissioner of Health plans to convene a meeting of the Advisory Committee on the Determination of a Health Care Facility in early March to clarify the health facility determination process by setting certain measurable guidelines for radiologic services.

State Health Planning and Coordinating Council . . . Noted that the President had appointed George L. Benz, M.D., Second Vice-President, to serve as MSNJ representative at meetings of the State Health Planning and Coordinating Council and/or its Review Committee. When Dr. Benz is inaugurated President, the new Second Vice-President will serve as his replacement.

New Jersey Steering Committee on Cost Containment . . . Noted that the Joint Executive Committees of MSNJ and NJHA had agreed that a Committee should be formed to consider hospital costs, revenues, utilization, increases in prices from vendors, and other activities which would promote voluntary cost containment.

MSNJ Representatives
George L. Benz, M.D.
Louis F. Albright, M.D.
William J. Dougherty, M.D.
Ralph J. Fioretti, M.D.
Sherman Garrison, M.D.
William E. Ryan, M.D.
William S. Vaun, M.D.

NJHA Representatives
Mr. Albin Oberg
Mr. William Cornetta
Mr. John Imhoff
Mr. Robert Mathews
Mr. Robert Shakno
Mr. William Thompson

Dr. Benz and Mr. Oberg were named cochairman. Mr. Charles Pierce of NJHA and Mr. Thomas Crane of New Jersey Foundation for Health Care Evaluation will share duties as secretary of the Committee.

Group Health Incorporated . . . Directed that Dr. George W. Melcher, Jr., President of GHI be invited to meet with the Executive Committee to discuss the matter of GHI reducing payments for services rendered by non-participants to 50 percent of the GHI schedule. The Board regards this action of GHI as arbitrary, discriminatory, and bordering on restraint of trade; it violates freedom of choice of physician and the right of the physician to charge his legitimate fee for service. There is no justification for the implication that a participating physician will render more valuable service than a non-participating physician.

Elective Surgery Second Opinion Program (ESSOP) . . . Received the following report concerning an item in the press on the Elective Surgery Second Opinion Program, released by the Commissioner of Insurance:

ESSOP is a voluntary, experimental pilot study administered by Blue Shield to determine what effect the program has on elective surgical procedures and hospital inpatient utilization. The recent release was taken from a bi-weekly report, issued at the request of the Insurance Commissioner, from Blue Shield to the Department of Insurance. Blue Shield believes the information released overstated the program's progress. Blue Shield has agreed to supply MSNJ with a copy of the ESSOP Activity Report.

CMDNJ Notes

Stanley S. Bergen, Jr., M.D.
President

Since CMDNJ developed a communications system for emergency care a little more than three years ago, the time for ambulances getting to accident victims has dropped from twenty to five minutes. Formally called the Regional Emergency Medical Communications System of Metropolitan New Jersey (known as MEDCOM), this sophisticated system of multiple radio contacts has shown dramatic results and is a major factor in MEDCOM's ability to aid accident victims quickly, as illustrated by the use of a three-way emergency hookup which was credited with saving the life of a severely injured truck driver. The accident was reported on a passing motorist's citizen band radio and MEDCOM had an ambulance at the scene within minutes. Another example is the response to a group of senior citizens, many of whom were in need of first aid and other medical care, during flooding in Bergen County last fall. Through MEDCOM's network, doctors, nurses, and supplies were transported by ambulances to the area and arrangements were made for hospital beds in Essex County to be put on standby if needed.

This 24-hour system, capable of handling up to 88,000 calls a year, can be credited with much of the drop—from 80 to 53 per 100,000 population—in the accidental death rate in the Newark area. At present Newark and Elizabeth are the primary participants but any community in the area may join.

MEDCOM was established in 1974 through a special three-year grant from the Robert Wood Johnson Foundation.

CMDNJ has assumed the costs since that funding ended last year, although it is expected that most of the expense eventually will be borne by participating communities.

The "brain center" of MEDCOM resembles a space center in miniature. From that room 25 area hospitals and more than 20 public and volunteer ambulances are in radio contact. Lines also are hooked up to the area police and fire departments.

Dispatchers have a minimum of 81 hours of training in emergency medical procedures, another 50 hours in communications' practice, and at least five years of on-the-job ambulance experience. They monitor area hospitals for bed availability and blood supply and keep a running account of the case loads to avoid overburdening any hospital with new cases. They also receive U.S. Weather Bureau reports on wind direction and air inversion alerts in case of fire or chemical leakages.

MEDCOM is governed by a board of directors consisting of representatives from each participating city, CMDNJ, and the New Jersey State Board of Health.

Nutrition Update:* Diabetes Mellitus

It has long been thought that the principal aim of dietary therapy of adult diabetics is to reduce carbohydrate consumption. However, this simplistic approach is wide of the mark. The recent resurgence of interest in the importance of "diet alone" in the management of adult diabetics has led to a reassessment of basic principles and practices.

The goals of dietary management in diabetes are multifaceted. The program should be designed to (1) avoid deleterious metabolic derangements of the diabetic state, (2) reduce the known risk factors that have been associated with the premature and accelerated atherosclerosis to which the diabetic is particularly prone, and (3) where possible, reduce the risk of other specific lesions associated with diabetes. Although the goals of dietary treatment may be the same, there are special considerations that apply to the younger insulin-requiring diabetic in distinction to the majority of adult obese diabetics.

CALORIES

The vast majority of adult diabetics are overweight. In fact, in epidemiologic studies, obesity is associated with the emergence of diabetes in a variety of populations and reduction of overweight has long been known to reduce hyperglycemia and glucose intolerance. There is no aspect of dietary intake other than total calories that has been related to the onset of diabetes; specifically, sugar intake per se cannot be implicated as a cause of diabetes. Therefore, the single most important objective in dietary treatment of adult-onset diabetics is reduction of total caloric intake to attain ideal body weight. Insurance company actuarial tables provide a good index of desirable weight. This diet, while restricted in calories, should be balanced and nutritionally adequate. Success of calorie restriction alone is often associated not only with reversal of the hyperglycemia associated with the diabetic state, but also with reduction of prominent risk factors (obesity, hypertension, hyperglycemia, hypercholesterolemia and hypertriglyceridemia) for atherosclerosis. The improvement of glucose tolerance associated with weight reduction appears to reflect a reversal of the insulin-resistant state of tissues associated with obesity. This tissue insulin resistance results in compensatory hypertrophy and hyperinsulinism and causes a strain on the pancreatic islet beta cells. Thus, diet and not insulin is the treatment of choice for these usually uncomplicated, mild to moderately severe adult obese diabetics.

By the same principle, the first priority in the diet of the underweight young insulin-dependent diabetic should be the provision of ample calories designed to achieve desirable weight and normal growth and development. For the diabetic already at desirable weight, the important objective is total caloric control to provide a nutritionally adequate diet for maintenance of weight and avoidance of weight gain with age.

MEALS

Regularity of food intake appears to be particularly important for ease of metabolic management in diabetics receiving insulin therapy. Food intake should be frequent and spaced in a fashion, which takes into account administered insulin and physical activity, primarily to avoid intermittent hypoglycemia. Rapid ingestion of simple sugars should be minimized because of the associated hyperglycemic peak, particularly in insulin-dependent diabetics in whom rapid swings of blood glucose are more difficult to avoid. As a corollary, periods of feast and fast should be avoided.

CARBOHYDRATES

Important dietary concepts have developed during recent years that redeveloped during recent years that require some alteration in long-held precepts. There no longer appears to be any need to restrict disproportionately the intake of carbohydrates in the diet of most diabetic patients. This change is not really revolutionary, but rather evolutionary. It is soundly based on the principles of dietary management of diabetes that were enunciated many years ago but went unheeded by many physicians. In the insulin-treated diabetic patient, increase of dietary carbohydrate without increase of total calories does not appear to increase insulin requirements and may make metabolic management smoother. In the typical adult obese diabetic, substitution of carbohydrate for fat may lower fasting plasma glucose levels and improve glucose tolerance in response to standard glucose loads. Glucose tolerance steadily improves with increasing proportion of carbohydrate in the diet. This is consistent with studies of Asian diabetic populations, who usually eat meals containing as much as 70% carbohydrate (mainly starches) and have only very mild diabetes with very little coronary atherosclerosis. The mechanism of improved glucose tolerance on high carbohydrate diets appears to involve increased sensitivity of tissues to insulin as an adaptive response to the increased proportion of carbohydrate.

Some adult diabetic patients also manifest endogenous hypertriglyceridemia, one of the risk factors associated with atherosclerosis. In such individuals, basal triglyceride levels may rise sharply in response to increases in dietary carbohydrate. However, since most diabetics are obese, hypertriglyceridemia when present responds to caloric restriction as in nondiabetic patients. Recent attention to plasma levels of glucose and triglyceride throughout the 24-hour period indicate

*Reprinted with permission of *Contemporary Nutrition* 2:12 (December) 1977, a newsletter from the Nutrition Department of General Mills, Inc., Minneapolis. This article was prepared by Edwin L. Bierman, M.D., Professor of Medicine, Division of Metabolism, Endocrinology, and Gerontology, University of Washington, Seattle.

that triglycerides may actually decrease during the day on higher carbohydrate diets while postprandial glucose levels are increased.

LOW CARBOHYDRATE OR LOW FAT?

The average American's carbohydrate consumption (approximately 45% of total calories) thus would be acceptable for the usual diabetic patient. However, even this may not prove optimal since such diets are still relatively high in fat. Today, most adult-onset diabetics die prematurely of atherosclerotic cardiovascular-renal disease, not from ketoacidosis. Atherosclerosis is also a major cause of morbidity in diabetes. Therefore, the "new" diabetic diet reaches beyond the short-term objective of preventing hyperglycemia and glycosuria and aims to help delay and minimize these eventual macrovascular complications. Thus, since diabetics are considerably more prone to develop atherosclerosis earlier and more severely than nondiabetics, it seems prudent to restrict further dietary fat and cholesterol by substituting carbohydrate.

It must be pointed out that long-term studies of various diets for diabetics on morbidity and mortality have yet to be performed (diabetics usually have been excluded from dietary studies related to atherosclerosis). Also unknown is the long-range effect of extreme changes of carbohydrate and fat in the diet on diabetic neuropathy and microangiopathy as well as on atherosclerotic vascular disease in populations not adapted to such diets. However, a liberalized carbohydrate intake for the diabetic will necessarily be associated with a decrease in dietary fat and cholesterol. Like nondiabetics, diabetics appear to respond to reduced intake of saturated fat and cholesterol with lowered serum cholesterol and triglyceride levels. Thus far, there is no firm evidence that this dietary restriction will retard the development of diabetic complications, particularly atherosclerosis. Epidemiologic and experimental evidence relating circulating lipids, particularly serum triglycerides, to atherosclerotic cardiovascular disease appears to apply to the diabetic patient. In general, reduction of serum cholesterol and triglycerides can be accomplished by limitation of calorie, saturated fat, and cholesterol intake. Specifically, since most diabetics are obese, hypertriglyceridemia and hypercholesterolemia, when present, respond to caloric restriction as in nondiabetic obese patients. There appears to be no additional benefit to be gained by addition of polyunsaturated fat to the diet, particularly since total calories would increase and there are uncertainties regarding the long-term effects of ingestion of large quantities of unsaturated fat. Diabetic patients, who already have hyperlipidemia (approximately 20 to 30 percent of adult diabetics) may be even more prone to develop atherosclerosis and, therefore, deserve particular attention to dietary management with perhaps further restriction of cholesterol and saturated fats.

Therefore, mild to moderately severe adult diabetics can be controlled on a diet containing as much as 60 percent of calories as carbohydrate, reduced in saturated fat and cholesterol with caloric intake adjusted so that body weight can be reduced toward ideal body weight. Such a diet will lower serum glucose, cholesterol, and triglyceride levels. (For the rare adult-onset diabetic who is lean, caloric maintenance on a low fat diet is appropriate with attention to prevention of weight gain.) This diet also appears to be prudent for the younger, not underweight, insulin-requiring diabetic as well.

TRACE NUTRIENTS

Minerals and trace elements such as potassium, calcium, and chromium have been reported to influence glucose metabolism and insulin secretion. The minimum requirement for these elements in the diabetic diet is not yet known, however. Dietary fiber may also influence glucose assimilation; its role in the diabetic diet is under study.

THE MEAL PLAN

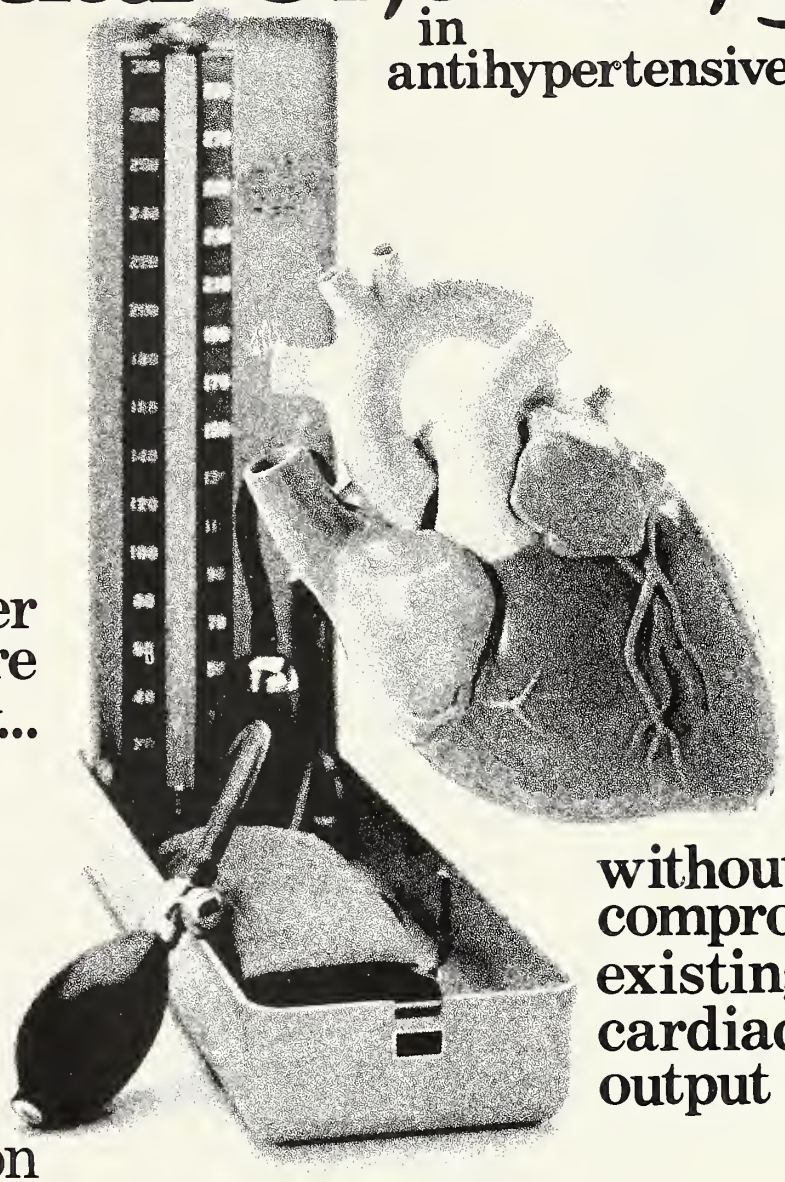
The cornerstone of therapy is reduction of overweight for adult-onset diabetics. Although compliance with such regimens has usually been poor, special attention on the part of the physician has yielded encouraging results. A higher proportion of carbohydrates in the meal plan may actually enhance patient cooperation. As much as 60 percent of the calories can be derived from carbohydrate and mainly will be in the form of complex carbohydrates such as starches and vegetables. The new Exchange Lists for Meal Planning available from the American Diabetes Association are very helpful in prescribing low-fat, low-calorie diets for diabetics. It should be reemphasized that although this dietary approach appears liberalized with respect to carbohydrate intake, these new recommendations clearly are not meant to give diabetics carte blanche to eat all the carbohydrate calories they want. In other words, the liberalization of carbohydrate intake provides for no increase of total calories, but it does make possible a *replacement* of fat calories by carbohydrate calories. Caloric control is not relaxed since for the diabetic as well as for the nondiabetic, calories do count. For the moderately severe or insulin-requiring diabetic, simple sugar still should be avoided, since disaccharides and monosaccharides are rapidly absorbed and can produce hyperglycemic peaks and a transient increase in glucosuria. The resultant osmotic diuresis may be undesirable. On the other hand, diabetic patients may in most cases indulge in an occasional desert as long as the caloric consumption for the day does not exceed the limits prescribed. In general, artificial sweeteners are not essential in the medical management of most diabetics.

It is now possible to make the diet for diabetics less forbidding and more important, to use it as a potential weapon against the often fatal atherosclerotic manifestations of the disease. It is recognized that as knowledge advances and new facts emerge, concepts change and nutritional recommendations for diabetics will continue to undergo evolution and modification.

REFERENCES

1. A guide for professionals: The effective application of exchange lists for meal planning, American Diabetes Assoc., Inc., American Dietetic Assoc., 1977.
2. Bierman EL *et al:* Principles of nutrition and dietary recommendations for patients with diabetes mellitus. *Diabetes,* 20:633-634, 1971.
3. Brunzell JD, Lerner RL, Hazzard WR, Porte D Jr, and Bierman EL: Improved glucose tolerance with high carbohydrate feeding in mild diabetes. *N Engl J Med* 284: 521-524, 1971.
4. Exchange lists for meal planning, American Diabetes Assoc., Inc., American Dietetic Assoc., 1976.
5. Weinsier RL, Seeman A, Herrera MG, Assal JP, Soeldner JS, and Gleeson RE: High and low carbohydrate diets in diabetes mellitus. *Ann Intern Med* 80:332-341, 1974.
6. West KM: Diet therapy of diabetes: An analysis of failure. *Ann Intern Med* 79: 425-434, 1973.
7. West KM: Present knowledge of nutrition in the prevention and therapy of diabetes mellitus. *Nutrition Review,* July, 1975.
8. Wood FC Jr and Bierman EL: New concepts in diabetic dietetics. *Nutrition Today,* May/June, pp. 4-12, 1972.

A Dual Challenge in antihypertensive therapy



to lower blood pressure effectively...

without compromising existing cardiac output

in hypertension

TABLETS: 250 mg, 500 mg, and 125 mg

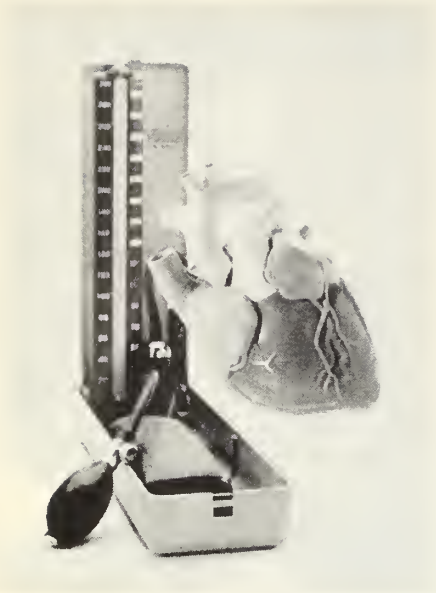
ALDOMET® (METHYLDOPA | MSD)

helps lower blood pressure effectively... usually with no direct effect on cardiac function–cardiac output is usually maintained

ALDOMET is contraindicated in active hepatic disease, hypersensitivity to the drug, and if previous methyldopa therapy has been associated with liver disorders.
It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. For more details see the brief summary of prescribing information.

For a brief summary of prescribing information, please see following page.

MSD
MERCK SHARP & DOHME



in hypertension

ALDOMET®

(METHYLDOPA|MSD)

helps lower blood pressure effectively... usually with no direct effect on cardiac function– cardiac output is usually maintained

Contraindications: Active hepatic disease, such as acute hepatitis and active cirrhosis; if previous methyldopa therapy has been associated with liver disorders (see Warnings); hypersensitivity.

Warnings: It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. Read this section carefully to understand these reactions.

With prolonged methyldopa therapy, 10% to 20% of patients develop a positive direct Coombs test, usually between 6 and 12 months of therapy Lowest incidence is at daily dosage of 1 g or less. This on rare occasions may be associated with hemolytic anemia, which could lead to potentially fatal complications. One cannot predict which patients with a positive direct Coombs test may develop hemolytic anemia. Prior existence or development of a positive direct Coombs test is not in itself a contraindication to use of methyldopa. If a positive Coombs test develops during methyldopa therapy, determine whether hemolytic anemia exists and whether the positive Coombs test may be a problem. For example, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at 6 and 12 months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first 3 weeks of therapy, occasionally with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first 2 to 3 months of therapy. In some patients the findings are consistent with those of cholestasis. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first 6 to 12 weeks of therapy or whenever an unexplained fever occurs. If fever and abnormalities in liver function tests or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients.

Rarely, a reversible reduction of the white blood cell count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur. Patients should be followed carefully to detect side reactions or unusual manifestations of drug idiosyncrasy.

Pregnancy and Nursing: Use of any drug in women who are or may become pregnant or intend to nurse requires that anticipated benefits be weighed against possible risks; possibility of fetal injury or injury to a nursing infant cannot be excluded. Methyldopa crosses the placental barrier, appears in cord blood, and appears in breast milk.

Precautions: Should be used with caution in patients with history of previous liver disease or dysfunction (see Warnings). May interfere with measurement of. urinary uric acid by the phosphotungstate method, serum creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, falsely high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. It is important to recognize this phenomenon before a patient with a possible pheochromocytoma is subjected to surgery. Methyldopa is not recommended for patients with pheochromocytoma. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites.

Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has recurred after dialysis in patients on methyldopa because the drug is removed by this procedure.

Adverse Reactions: *Central nervous system:* Sedation, headache, asthenia or weakness, usually early and transient; dizziness, lightheadedness, symptoms of cerebrovascular insufficiency, paresthesias, parkinsonism, Bell's palsy, decreased mental acuity, involuntary choreoathetotic movements; psychic disturbances, including nightmares and reversible mild psychoses or depression.

Cardiovascular: Bradycardia, aggravation of angina pectoris. Orthostatic hypotension (decrease daily dosage). Edema (and weight gain) usually relieved by use of a diuretic. (Discontinue methyldopa if edema progresses or signs of heart failure appear.)

Gastrointestinal: Nausea, vomiting, distention, constipation, flatus, diarrhea, mild dryness of mouth, sore or "black" tongue, pancreatitis, sialadenitis.

Hepatic: Abnormal liver function tests, jaundice, liver disorders.

Hematologic: Positive Coombs test, hemolytic anemia. Leukopenia, granulocytopenia, thrombocytopenia. Positive tests for antinuclear antibody, LE cells, and rheumatoid factor.

Allergic: Drug-related fever, lupus-like syndrome, myocarditis.

Other: Nasal stuffiness, rise in BUN, breast enlargement, gynecomastia, lactation, impotence, decreased libido, dermatologic reactions including eczema and lichenoid eruptions, mild arthralgia, myalgia.

Note: Initial adult dosage should be limited to 500 mg daily when given with antihypertensives other than thiazides. Tolerance may occur, usually between second and third months of therapy; increased dosage or adding a diuretic frequently restores effective control. Patients with impaired renal function may respond to smaller doses. Syncope in older patients may be related to increased sensitivity and advanced arteriosclerotic vascular disease; this may be avoided by lower doses.

How Supplied: Tablets, containing 125 mg methyldopa each, in bottles of 100; Tablets, containing 250 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 1000; Tablets, containing 500 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 500.

For more detailed information, consult your MSD representative or see full prescribing information.
Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

J6AM07R1(709)

MSD MERCK SHARP & DOHME

212th Annual Meeting
May 6-9, 1978

SCIENTIFIC SESSIONS

The following sessions meet the criteria for the listed number of credit hours in Category I of the Physician's Recognition Award of the American Medical Association.

Saturday, May 6	Credits
Governor's Conference	4
Trauma Oration	1½
Sunday, May 7	
Allergy	2
Anesthesiology, Cardiovascular Diseases, Medicine	2
Dermatology	4½
Emergency Medicine	3
*Family Practice, Medicine, Pediatrics, Rheumatism	3
Neurosurgery, Neurology	2½
Obstetrics and Gynecology	2
Ophthalmology, Plastic and Reconstructive Surgery	2
*Psychiatry, Family Practice, Pediatrics	2
Radiology, Urology	3
Monday, May 8	
Selman A. Waksman Lecture	2
Chest Diseases, Medicine	2½
Clinical Pathology, Gastroenterology and Proctology, Surgery	3½
*Orthopedic Surgery, Family Practice	3
Otolaryngology	3
Physical Medicine and Rehabilitation	2

*Approved also for same number of prescribed credits by the American Academy of Family Physicians

MOTION PICTURE THEATER

The film program is presented through the cooperation of Roche Laboratories, Division of Hoffman-LaRoche, Inc., Nutley. The individual films are offered through the courtesy of the company indicated.

Saturday, May 6

Recurrent Urinary Tract Infections in Older Patients
Burroughs Wellcome

Sunday, May 7

Primary Aldosteronism
Eaton Laboratories

Management of Severe Burns in Children
Eaton Laboratories

Maintaining Nutrition in the Critically Ill Patient
Eaton Laboratories

Hypertension: Treating the Primary Abnormality
Pfizer Laboratories

Catheter Care and Use
Eaton Laboratories

Small-Carrion Penile Prosthesis for Management of Impotence
Eaton Laboratories

Metastasizing Basal Cell Carcinoma
E. R. Squibb and Sons

Immune Capacity in the Newborn
Pfizer Laboratories

Tracheotomy and Cricothyreotomy
Pfizer Laboratories

Monday, May 8

Sex and the Heart Patient
Burroughs Wellcome

Enteral Hyperalimentation: Technique of Intubation
Eaton Laboratories

Maintaining Nutrition in the Critically Ill Patient
Eaton Laboratories

Hypertension: Treating the Primary Abnormality
Pfizer Laboratories

Report from the Foundation

Daniel J. O'Regan, M.D.
Medical Director

A few days before this article was written, President Carter's new budget for Fiscal Year 1979 (which starts October 1, 1978) was presented to Congress. In the health field, the emphasis will be on cost containment and "improved" management controls, while benefits for the poor and elderly are expanded. These goals appear, at first reading, to be self-defeating. Secretary Califano will need to combine the talents of a juggler, a tightrope walker, and a sleight-of-hand artist to accomplish them. Health planning efforts, via the Health Systems Agencies (HSAs) will play an important role. (The latest National Guidelines for Health Planning were in the January 20 Federal Register —we can provide a copy, if you wish). State Medicaid Fraud Control Units, which arise out of Public Law 95-142 (Medicare-Medicaid Fraud and Abuse legislation) will be another part of the cost-reduction machinery. There will be a new effort this year to pass the 9 percent hospital "cap," which did not get through the 1977 Congressional session. A National Health Insurance bill of some type will be sent to the "hill" by the Administration later this year. All of these items will deserve your attention in the coming months.

Another topic which is aimed at greater efficiency in medical care is the prepaid care concept. The Individual Practice Association (IPA) type of prepaid delivery seems to us in the Foundation as an ideal way for doctors to join together in order to offer quality medical services, in a cost-effective mode, to its subscribers. The quality and efficiency are monitored by professional peer review by the physicians' colleagues. That this model may be a viable pathway for New Jersey doctors is attested to by the emergence of planning groups in Union, Middlesex, Hunterdon, and Hudson counties. Add these to the list of prepaid groups being developed in Essex, Salem, Morris, and Atlantic counties, and the Garden State is responding to this challenge and opportunity.

NJFHCE, and especially its Task Force on HMO/IPA, feels gratified at this response. The excellent attendance to our all-day meeting in December and the vigorous activity going on in all corners of the State have resulted in a plan to share resources and personnel through a consortium arrangement. Anyone desiring information on this idea should contact Ms. Barbara Kempczinska, Assistant Director of NJFHCE, and our key person on IPA.

We appreciate the response of our colleagues to show that physicians can respond to useful ideas. We also are pleased that many New Jersey doctors have appreciated the Foundation's work on this subject. There are many other medical-social-economic ideas on the drawing boards of "think-tanks" in government, industry, and academia. With your continued support, we will keep you advised of them as they appear.

Physicians Seeking Location in New Jersey

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly to them.

ALLERGY – Zev M. Munk, M.D., 5505 Cavendish Boulevard, Apt. 504, Montreal, Quebec, Canada H4V2Y6. McGill 1974. Subspecialty, internal medicine. Board certified (IM). Multi-specialty group, partnership, research. Available August 1978.

ANESTHESIOLOGY – Alan D. Weinstock, M.D., 320 Ocean Parkway, Apt. E-7, Brooklyn 11218. Einstein 1974. Board eligible. Group or partnership. Available July 1978.

Barry S. Wilderman, M.D., 52316-1 Biloxi Circle, Fort Hood, Texas 76544. Temple 1972. Board certified. Solo, specialty group, partnership. Available July 1978.

Robert Y. Gumnit, M.D., 171-6 Echelon Road, Voorhees 08043. Jefferson Medical College 1975. Board eligible. Group, partnership, solo, or institution. Available July 1978.

Rudraiah Raja Sekhar, M.D., 1627 S. Michigan Avenue, Apt. 305, Villa Park, Illinois 60181. Bangalore (India) 1967. Board eligible. Group, partnership, solo. Available July 1978.

CARDIOLOGY – Jeffrey M. Mitchel, M.D., 240 East Palisades Avenue, Apt. F-7, Englewood 07631. NYU 1974. Subspecialty, internal medicine. Board eligible. Group or partnership with special interest in invasive and non-invasive clinical cardiology practice. Available July 1978.

CARDIOVASCULAR DISEASES – Stephen E. Weinberg, M.D., 663 Cumberland Avenue, Syracuse, New York 13210. Hahnemann 1971. Subspecialty, internal medicine. Board certified (IM). Group, partnership, institution. Available July 1978.

Mohammad S. Choudhry, M.D., 1523 Central Park Avenue, Apt. 16-D, Yonkers, New York 10710. Nishtar (West Pakistan) 1971. Subspecialty, internal medicine. Board certified (IM). Group, solo, or institution. Available July 1978.

Basant K. Khandelwal, M.D., 80-15 41st Avenue, Jackson Heights, New York 11373. JLN Medical College (Ajmer, India) 1971. Subspecialty, internal medicine. Board certified (IM). Any type practice. Available July 1978.

William M. Lieppe, M.D., 1809 Erwin Road, Apt. B., Durham, North Carolina 27705. University of Pennsylvania 1972. Subspecialty, internal medicine. Board certified (IM). Group, partnership, research. Available July 1978.

Bhadresh A. Patel, M.D., 501 North 11th Street, Apt. 307, Philadelphia, Pennsylvania 19141. Baroda Gujarat (India) 1971. Subspecialty, internal medicine. Board certified (IM). Group, or solo. Available July 1978.

John J. Cassel, M.D., 101 Valley Drive, Bolingbrook, Illinois 60439. Jefferson Medical College 1973. Subspecialty, internal medicine. Board certified (IM). Group or partnership. Available July 1978.

DERMATOLOGY – Joseph J. Chanda, M.D., 3525 Charter Place, Ann Arbor, Michigan 48105. Georgetown 1971. Subspecialty, internal medicine. Board eligible (IM). Group, partnership, solo. Available July 1978.

EMERGENCY MEDICINE – Thomas J. Rosko, M.D., Box 1341, Hershey Medical Center, Hershey, Pa. 17033. Penn State 1976. Group or partnership. Available June or July 1978.

FAMILY PRACTICE – Ira Rabin, M.D., 153 Pierrepont Street, Brooklyn, New York 11201. Michigan 1969. Board eligible. Group. Available on 30 days' notice.

Gordon S. Walbroehl, M.D., 406 Dupont Way, Wright-Patterson AFB, Ohio 45433. CMDNJ 1972. Board eligible. F.P. residency, teaching staff. Available August 1978.

B. D. Agarwal, M.D., 245 Oakwood Road, Apt. 1-C, Charleston, West Virginia 25314. India 1966. Partnership or solo. Available.

Jeffrey C. Oppenheim, M.D., 9 Wilton Street, Princeton 08540. Rutgers (CMDNJ) 1975. Board eligible. Group, partnership, institution. Available September 1978.

Robert M. Pallay, M.D., 38 Deanna Drive, Apt. 99, Somerville 08876. Hadassah (Israel) 1964. Subspecialty, emergency medicine. Board eligible (FP). Partnership, solo, research. Available July 1978.

GASTROENTEROLOGY – Steven C. Fiske, M.D., 3312 Stearns Hill Road, Waltham, Massachusetts 02154. NYU 1973. Board certified (IM). Partnership or group (academically oriented). Available July 1978.

Jacob Nudel, M.D., 300 Winston Drive, Cliffside Park 07010. NYU 1973. Board certified (IM). Group, partnership, or solo. Available July 1978.

GENERAL PRACTICE – Gideon C. Zikel, M.D., 4162 North Maryland Avenue, Shorewood, Wisconsin 53211. Subspecialty, internal medicine. Group, institution. Available July 1978.

Douglas A. Howell, M.D., Lyme Road, Hanover, New Hampshire 03755. Temple 1973. Subspecialty, internal medicine. Board certified (1M). Group, research, institution. Available July 1978.

HEMATOLOGY—Brian K. Walker, M.D., 5 St. James Court, Philadelphia, Pennsylvania 19106. Cornell 1973. Subspecialty, internal medicine. Board certified (1M). Institution, research, group. Available July 1978.

Vijaykumar P. Shah, M.D., 636 Brooklyn Avenue, Apt. 2-D, Brooklyn, New York 11203. M.S. University (Baroda, India) 1969. Subspecialty, pathology. Board certified (pathology). Institution, research, group. Available July 1978.

Daniel Katcher, M.D., 1300 Army-Navy Drive, Arlington, Virginia 22202. University of Vermont 1972. Subspecialty, internal medicine. Board Certified (IM). Group, research. Available August 1978.

INTERNAL MEDICINE—Avelino S. B. Rosales, M.D., 155-12 79th Street, Howard Beach, New York 11414. Univ. of the East, 1972 (Philippines). Subspecialty, nephrology. Board eligible. Group. Available July 1978.

Mohammad Yusaf Sandhu, M.D., Troy Towers, Apt. 1801, Mountain Road, Union City 07087. King Edward (Lahore, Pakistan). Subspecialty, cardiology. Group, partnership, solo. Available.

Mohammad S. Choudhry, M.D., 1523 Central Park Avenue, Yonkers, New York 10710. Nishtar (Pakistan). Subspecialty, cardiology. Board certified (1M). Solo or partnership. Available July 1978.

Bharti Desai Eanni, M.D., 23 Wedgewood Circle, Eatontown 07724. Grant Medical College (India) 1973. Group, partnership, hospital practice. Available.

Marc A. Goldman, M.D., 2413 Elmington Drive, Richmond, Virginia 23233. NYU 1973. Subspecialty, gastroenterology. Board certified (IM). Group or partnership. Available July 1978.

Soo Woong Park, M.D., 4718 Kenmore Avenue, Apt. 303, Alexandria, Virginia 22304. Seoul (Korea) 1969. Subspecialty, nephrology. Board certified (1M). Group or solo. Available July 1978.

Payup Thajchayapong, M.D., 500 Central Avenue, Apt. 308, Union City 07087. Siriraj (Thailand) 1968. Subspecialty, endocrinology. Board certified. Any type practice. Available July 1978.

Ramesh M. Shah, M.D., 4 Park Avenue, Apt. 5-E, New York, New York 10016. Grant Medical (Bombay, India) 1972. Subspecialty, pulmonary diseases. Board certified. Group, partnership, solo, or institution/industrial. Available July 1978.

Richard J. Eatroff, M.D., 1140-7 Kirkbride Road, Voorhees Township 08043. Guadalajara 1972. Subspecialty, gastroenterology. Board certified. Group or partnership. Available July 1978.

Edward B. Biederman, M.D., 6501 Cow Pen Road, Apt. D-210, Miami Lakes, Florida 33014. NYU 1973. Subspecialty, endocrinology. Board certified. Group or partnership. Available July 1978.

Sung H. Ryoo, M.D., 1575 North Avenue, Apt. 18, Bridgeport, Connecticut 06604. Kyungpook (Korea) 1969. Subspecialty, hematology/oncology. Board certified. Group, partnership, solo. Available July 1978.

Robolge A. K. Lenora, M.D., 110 Caton Avenue, Apt. 4-H, Brooklyn, New York 11218. Sri Lanka (Ceylon) 1970. Subspecialty, pulmonary medicine. Board certified. Group, partnership, or hospital-based. Available.

George M. Massoud, M.D., 4300 Alton Road (Mt. Sinai Hospital), Miami Beach, Florida 33140. Baghdad (Iraq) 1971. Board eligible. Any type practice. Available July 1978.

Husman Khan, M.D., 126 Route 46 East, Apt. 36-A, Lodi 07644. S.N. Medical College (Agra, India) 1973. Board eligible. Group or institution. Available July 1978.

Harmohinder S. Gogia, M.D., Bergen Pines Hospital, Ridgewood Avenue, Paramus, New Jersey 07652. Government Medical College (India) 1969. Board eligible. Group, partnership, solo. Available July 1978.

Robert J. Levai, M.D., 32 Lower Overlook Road, Summit 07901. Albany (New York) 1975. Board eligible. Group, partnership. Available July 1978.

Miguel A. Sarriera, M.D., Juan Guell 131-133 104 TA, Barcelona 14, Spain. Barcelona 1960. Board eligible. Any type practice. Available July 1978.

Pillutla V. Sastry, M.D. 501 Sixth Street, Apt. 4-H, Brooklyn, New York 11215. Guntur (India) 1968. Subspecialty, cardiovascular diseases. Board certified. Group, partnership, solo. Available.

Thomas A. Neef, M.D., 367 Hill-n-Dale Drive North, York, Pa. 17403. Georgetown 1975. Board eligible. Group, partnership, solo. Available July 1978.

Jung Hun Lee, M.D., 27800 Mills Avenue, Apt. 103, Euclid, Ohio 44132. Kyungpook (Korea) 1969. Subspecialty, cardiology. Board certified. Group, partnership, solo. Available July 1978.

Narendra C. Bhalodkar, M.D., 86-16 60th Avenue, Apt. 3-L, Elmhurst, New York 11373. Baroda (India) 1971. Subspecialty, cardiology. Board certified. Group, partnership, solo, or hospital based. Available July 1978.

David T. Klein, M.D. 4750 Bedford Avenue, Brooklyn, New York 11235. Brussels 1975. Board eligible. Partnership or group. Available July 1978.

Richard D. Schubert, M.D. 21 Parkman Street, Brookline, Massachusetts 02146. Downstate (NYU) 1975. Subspecialty, rheumatology. Board certified. Group. Available July 1978.

Mohammad H. Al-Asha, M.D., 70 Branchbrook Drive, Belleville 07109. Damascus (Syria) 1972. Subspecialty, gastroenterology. Board certified. Group or partnership. Available July 1978.

Arthur G. Manalo, M.D., 5804 Annapolis Road, #810, Bladensburg, Maryland 20710. University of the East (Philippines) 1972. Board eligible. Solo, partnership, emergency room. Available July 1978.

Edward T. Swibinski, M.D., 352 E. 89th Street, Apt. 1-C, New York, New York 10028. NYU 1975. Board eligible. Group, research, emergency room. Available July 1978.

Alan R. Vinitsky, M.D., 2801 Stanbridge Street, Apt. 212-A, Norristown, Pennsylvania 19401. University of Pennsylvania 1974. Board certified. Group, partnership, institution. Available July 1978.

Myron O. Goldbert, M.D., 3755 Henry Hudson Parkway. Riverdale, New York 10463. Albert Einstein 1971. Subspecialty, gastroenterology. Board certified. Group or partnership, Available July 1978.

Munir A. Hasan, M.D., 80 Palisade Avenue, Apt. 34, Jersey City 07306. Baghdad (Iraq) 1972. Subspecialty, general practice. Board certified. Group or partnership. Available July 1978.

Kevin V. Carey, M.D., 49 Marion Street, Apt. 6-C, Brookline, Massachusetts 02146. NYU 1973. Subspecialty, gastroenterology. Board certified. Group or partnership. Available July 1978.

Najib A. Abdallah, M.D., 12 Meadow Lane, Lenox, Massachusetts 01240. Cairo (Egypt) 1971. Board eligible. Group, solo, institution. Available July 1978.

Young S. Shim, M.D., 1925 Eastchester Road, Apt. 17-A, Bronx, New York 10461. Subspecialty, pulmonary diseases. Board certified. Group or solo. Available July 1978.

Harish Chander, M.D., 42-52 Union Street, Apt. 518, Flushing, New York 11355. New Delhi (India) 1973. Subspecialty, nephrology. Board eligible. Group, partnership. Available July 1978.

Bodinor Thepchatri, M.D., 9000 Harry Hines Boulevard, Dallas, Texas 75235. Chiengmai (Thailand) 1972. Board eligible. Institution, emergency room, partnership, solo. Available July 1978.

Satnam S. Uppal, M.D., 2190 Gateway Terrace, Apt. 307A, Easton, Pennsylvania 18042. Christian Medical College (Ludhiana, India) 1968. Board eligible. Group, partnership, solo. Available July 1978.

Ira Spiler, M.D., 27 Sutherland Road, Brighton, Massachusetts 02146. Einstein 1971. Subspecialty, endocrinology. Board certified (1M). Group, partnership, or geographic (full time). Available July 1978.

Stanley R. Zimmerman, M.D., 350 Lenox Road, Apt. 4-N, Brooklyn, New York 11226. Einstein 1975. Board eligible. Group, partnership. Available July 1978.

Francis C. D'Mello, M.D., 48-30 91st Place, Elmhurst, New York 11378. Grant Medical 1970. Subspecialty, gastroenterology. Board certified. Group, partnership, solo. Available August 1978.

Chandra Nouli, M.D., 2441 Webb Avenue, Apt. 1-E, Bronx, New York 10468. Gandhi (India) 1968. Subspecialty, pulmonary medicine. Board eligible. Solo or hospital-based. Available July 1978.

Rustom F. Damania, M.D. 108 Oak Street, Ridgewood 07450. Poona (India). Subspecialty, pulmonary medicine. Board eligible. Group, partnership, solo, industrial. Available July 1978.

Ramesh R. Karia, M.D., 2431 Webb Avenue, Apt. 9-E, Bronx, New York 10468. L.T.M.M. (India) 1971. Subspecialty, hematology/oncology. Board certified. Group, partnership, solo. Available July 1978.

Mahesh R. Desai, M.D., 225 Vandalia Avenue, Apt. 19-G, Brooklyn, New York 11339. NHL Medical College (India). Subspecialty, gastroenterology. Board certified. Group, partnership, solo, hospital based. Available.

NEPHROLOGY—Gwang O. Kim, M.D., 2233 Foxbourne Road, Apt. 8, Toledo, Ohio 43614. Yonsei (Korea) 1969. Subspecialty, internal medicine. Board eligible (IM). Group, partnership, solo. Available July 1978.

Ralph J. Caruana, M.D., 2556 Alderney Lane, Winston-Salem, North Carolina 27103. Tufts 1974. Subspecialty, internal medicine. Board eligible (IM). Group, research. Available July 1978.

NEUROLOGY—Richard F. Tonzola, M.D., 18 Park Road, Belmont, Massachusetts 02178. CMDNJ 1973. Board eligible. Group, partnership. Available July 1978.

OBSTETRICS/GYNECOLOGY—D. Chakrabarty, M.D., 74 Fairview Avenue, Great Neck, New York 11023. University of Calcutta (India) 1956. Board certified. Group or partnership. Available.

Surinder Kumar, M.D., 751 Parkdale Avenue, Apt. 502, Ottawa, Ontario K1Y-1J7, Canada. Agra (India) 1969. Board eligible. Partnership or multispecialty. Available.

Shyue-Yi Chang, M.D., 10 North Woodington Road, Apt. B-9, Baltimore, Maryland 21229. Kaohsiung (Taiwan) 1971. Board eligible. Group, partnership, solo. Available July 1978.

Emmanuel A. Atiemo, M.D., 155 East Hartsdale Avenue, Hartsdale, New York 10530. University of Ghana 1970. Board eligible. Group, partnership, solo. Available July 1978.

Ajay K. Maitra, M.D., 8432 East Jefferson, Apt. 311, Detroit, Michigan 48214. Calcutta 1963. Subspecialty, oncology. Board eligible. Partnership, solo, or institution. Available July 1978.

Lloyd A. Prezant, M.D., 83-48 Charlecote Ridge, Jamaica Estates, New York 11432. Guadalajara 1973. Board eligible. Group or partnership. Available July 1978.

Pedro H. Ramirez, M.D., 543-01 Regis Ct., Salem Harbour, Grant Avenue and State Road, Andalusia, Pennsylvania 19020. San Marcos (Peru) 1969. Board eligible. Group, partnership, or solo. Available July 1978.

Jon R. Snyder, M.D., 3214 Orion Circle, Rome, New York 13440. NYU 1972. Board eligible. Group or partnership. Available July 1978.

Diana Barrows, M.D., 100-A Phelps Avenue, New Brunswick 08901. University of California (Irvine) 1973. Board eligible. Any type practice. Available August 1978.

Javad J. Jamshidi, M.D., 5555 Wissahickon Avenue, Apt. 1012, Philadelphia, Pennsylvania 19144. Meshed (Iran) 1965. Board certified. Group, partnership, solo. Available July 1978.

Seetha Devi Sureddi, M.D., 318 East 15th Street, Apt. 8-F, New York, New York 10003. Guntur (India) 1968. Any type practice. Available July 1978.

Parimal S. Bhayani, M.D., 1275 Rock Avenue, Apt. KK-7, North Plainfield 07060. Bombay 1969. Board eligible. Group, partnership, solo. Available.

OCCUPATIONAL MEDICINE—Louis Z. Fauteux, Jr., M.D., Twinbridge Apts., No. 344F, Penns Grove 08069. Georgetown 1947. Board certified (IM). Industrial medicine. Available.

ONCOLOGY—Remesh K. Shah, M.D., 1882 Manor Drive, Union 07083. Baroda (India). Group or solo. Available July 1978.

OPHTHALMOLOGY—Clark Robert Cobble, M.D., 3843 Eagle Heights, Clinton, Iowa 52732. Vanderbilt 1970. Any type practice. Available September 1978.

Andrew Zorbis, M.D., 5700 Arlington Avenue, Bronx, New York 10471. Downstate 1973. Board eligible. Group, partnership, solo. Available July 1978.

Alan N. Kohn, M.D., 305 East 86th Street, Apt. 20-N, New York, New York 10028. Washington (Missouri) 1973. Board eligible. Group, partnership, solo. Available July 1978.

Edward A. Gluck, M.D., 70-20 108th Street, Forest Hills, New York 11375. Tufts 1974. Group, partnership, solo. Available July 1978.

OTOLARYNGOLOGY—Ramesh J. Patel, M.D., 316 South 6th Street, Mattoon, Illinois 61938. Baroda (India) 1966. Board eligible. Group, partnership, solo. Available March 1978.

OTORHINOLARYNGOLOGY—Jong Ho Won, M.D., 1808 Rambling Ridge Lane, Apt. 102, Baltimore, Maryland 21209. Korea 1966. Board eligible. Group, solo, or partnership. Available July 1978.

PATHOLOGY—Kamlesh R. Gupta, M.D., 12 Arthur Court, Closter 07624. Christian Medical College (Ludhiana, India) 1968. Board eligible. Group, institution or academic-oriented. Available July 1978.

Chuang-Shian Kiang, M.D., 91-30 50th Avenue, Elmhurst, New York 11373. National Taiwan 1972. Board eligible. Group, partnership, institution. Available July 1978.

John Elias, M.D., 3450-26R Wayne Avenue, Bronx, New York 10467. St. Andrew's (Scotland) 1973. Subspecialty, clinical pathology. Board eligible. Group, partnership, institution. Available July 1978.

Anthony W. Hu, M.D., 770 Anderson Avenue, Apt. 9-M, Cliffside Park 07010. Chung-Shan (China) 1969. Special interest—blood bank. Board certified. Group, partnership, institution. Available July 1978.

PEDIATRICS—Charles R. Bushong, Jr., M.D., 1560 N. Prospect Avenue, Apt., 808, Milwaukee, Wisconsin 53202. Columbia 1973. Any type practice. Available July 1978.

Charles F. Kelley, Jr., M.D., 3854 Delco Road, Pittsburgh, Pennsylvania 15227. Pittsburgh 1975. Board eligible. Any type practice. Available July 1978.

Shahid N. Khan, M.D., 3245 Belle Court, Royal Oak, Michigan 48072. King Edward (Pakistan) 1973. Subspecialty, neonatology. Board eligible. Hospital-based neonatology or group. Available July 1978.

Mark D. Simms, M.D., 2200 Benjamin Franklin Parkway, Apt. W-308, Philadelphia, Pennsylvania 19130. SUNY (Upstate) 1974. Board eligible. Group, partnership, solo, research, institution. Available July 1978.

David R. Croughan, M.D., 209 Tuscan Road, Maplewood 07040. Guadalajara 1973. Board eligible. Group, solo, emergency room, hospital-based. Available.

Rao B. K. Potluri, M.D., 2225 Canary Drive, Rockford, illinois 61103. Sri Venkateswara (India) 1972. Board eligible. Group, partnership, institution. Available July 1978.

Aditya Kaul, M.D., 53 Garden Court, Eggertsville, New York 14226. M. Azad (India) 1971. Board eligible. Group, research, institution. Available July 1978.

Vege Ramakrishna Rao, M.D., 3 Marshal Street, Apt. 8-K, Irvington 07111. Guntur (India) 1970. Board eligible. Group, partnership, industrial. Available July 1978.

Talmor Hanoch, M.D., c/o The Field Clinic, Centreville, Mississippi 39631. Hadassah (Israel) 1974. Board eligible. Group, partnership. Available March 1978.

Rayasam V. Prasad, M.D., 75 Delafield Street, Apt. G, New Brunswick 08901. S.V. Medical College (India) 1971. Subspecialty, infectious diseases. Board eligible. Partnership, solo, institution. Available July 1978.

Igbal A. Memon, M.D., 720 S. Wolcott, Box 911 KMH, Chicago, Illinois 60612. Dow (Karachi, Pakistan) 1973. Board eligible. Group, institution. Available July 1978.

Leo P. Pajarillo, M.D., 2503 A Atlas Drive, Rome, New York 13440. Cebu Institute (Philippines) 1968. Board eligible. Partnership, solo, institution. Available July 1978.

Pairoj Ruktanonchai, M.D., 27 Blessing Road, Slingerlands, New York 12159. Ramathibodi (Thailand) 1972. Subspecialty, pediatric cardiology. Board eligible. Group, partnership, institution. Available July 1978.

Nihal S. Nagahawatte, M.D., 210 B. Davey Street, Bloomfield 07003. Sri Lanka (Ceylon) 1969. Board eligible. Group, partnership, hospital, emergency room, associate. Available July 1978.

PSYCHIATRY—Mahasukh H. Shah, M.D., 211 S. Millvale Avenue, Apt. #6, Pittsburgh, Pennsylvania 15224. T.N. Medical (India) 1959. Board eligible. Group, partnership. Available July 1978.

R. Shah Jyoti, M.D., 4 Park Avenue, Apt. 5-E, New York, New York 10016. M. P. Shah (India) 1973. Board eligible. Group or institution. Available July 1978.

S. A. M. Kazmi, M.D., 600 Gresham Drive, Apt. 104, Norfolk, Virginia 23507. King Edward (Pakistan) 1974. Board eligible. Group, partnership, solo, or institutional. Available July 1978.

PULMONARY DISEASES—Ming Sung Chiu, M.D., 415 S. Wesley, Apt. 44, Oak Park, Illinois 60302. Taipei (Taiwan)

1969. Subspecialty, internal medicine. Board certified (IM). Group, partnership, solo, institution. Available July 1978.

Mark Pomerans, M.D., Cherry Hospital, Goldsboro, North Carolina 27530. Montevideo (Uruguay) 1964. Subspecialty, psychiatry. Institution. Available April 1978.

Norman H. Braslow, M.D., 8005 Hendrix N.E., Apt. 622, Albuquerque, New Mexico 87109. Jefferson 1973. Subspecialty, internal medicine. Board certified (IM). Group, partnership, institution. Available July 1978.

RADIOLOGY—Michael M. Katz, M.D., 6713 Spring Grove Court, Middleton, Wisconsin 53562. University of Pennsylvania 1973. Subspecialty, diagnostic radiology. Board eligible. Group, institution. Available July 1978.

Vijaykumar Hiremath, M.D., 1650-15 Selwyn Avenue, Bronx, New York 10457. Jawaharlal Nehru (India) 1970. Subspecialty, diagnostic radiology. Board eligible. Group, partnership, institution. Available July 1978.

Subramaniam N. Subramaniam, M.D., 141 Palisade Avenue, Apt. 9, Jersey City 07306. Topiwala (Bombay, India) 1963. Board eligible. Group, partnership, institution. Available July 1978.

Shirish L. Parikh, M.D., 185 Palmdale Drive, Apt. #8, Williamsville, New York 14221. LTM Medical (India) 1971. Subspecialty, nuclear medicine. Board eligible. Group, partnership, solo, institution, academic. Available July 1978.

RHEUMATOLOGY—Richard D. Schubert, M.D., 21 Parkman Street, Brookline, Massachusetts 02146. Downstate 1972. Subspecialty, internal medicine. Board certified (IM). Group, partnership, institution. Available June 1978.

Steven L. Feldman, M.D., 2025 E. 53rd Place, Brooklyn, New York 11234. Downstate 1971. Subspecialty, internal medicine. Board certified (IM). Group or partnership. Available July 1978.

SURGERY, GENERAL—Simon B. Santos, M.D., 8720 Chestnut Circle, Apt. #4, Kansas City, Missouri 64131. Santo Domingo 1970. Board eligible. Group or partnership. Available July 1978.

Michael H. Wimsatt, M.D., 21 Maplewood Terrace, Portsmouth, New Hampshire 03801. Rochester 1971. Board eligible. Group, partnership, or solo. Available July 1978.

Howard F. Floch, M.D., 255 East 23rd Street, New York, New York 10010. Hahnemann 1972. Board eligible. Group, partnership, research. Available July 1978.

Gladstone Errol King, M.D., 3205 Tennessee Street, Pine Bluff, Arkansas 71601. University of West Indies 1966. Board certified. Group, partnership, institution. Available July 1978.

Ashok K. Sahai, M.D., 5058 Broadway, Apt. 10, Cleveland, Ohio 44127. SN Medical College (India) 1968. Subspecialty, general practice. Board eligible. Any type practice. Available July 1978.

Amarkanth R. Saxena, M.D., 903 S. Ashland, Apt. 802B, Chicago, Illinois 60607. Gandhi (India) 1964. Subspecialty, cardiovascular surgery. Board certified. Group, partnership. Available July 1978.

Friedrich Dutka, M.D., 3737 Beaubien Boulevard, Detroit, Michigan 48201. University of Vienna 1965. Subspecialty, thoracic surgery. Board certified. Group, research, institution. Available.

Rao Sureddi, M.D., 318 East 15th Street, Apt. 8-F, New York, New York 10003. Andhra (India) 1965. Board eligible. Any type practice. Available July 1978.

Carlos A. Medina, M.D., 787 Chambord Circle, Marion, Ohio 43302. National University, Colombia (South America) 1971. Special interest in emergency medicine. Hospital contract, group, or solo. Available July 1978.

Samir N. Guergawi, M.D., 101 Fairway Boulevard, Riverview, New Brunswick, Canada E1B 1T4. Cairo 1949. Group, partnership, or solo. Available July 1978.

SURGERY, ORTHOPEDIC—Jatinkumar D. Gandhi, M.D., 9601 Ashton Road, Apt. I-9, Philadelphia, Pennsylvania 19114. M.P. Shah (India) 1967. Board eligible. Group, partnership, research. Available July 1978.

Edwin J. Lowd, M.D., MOQ 3057, Camp Lejeune, North Carolina 28542. Meharry 1969. Board eligible. Partnership, group, or solo. Available August 1978.

SURGERY, UROLOGICAL—Bashiruddin N. Shaikh, M.D., 66 Pacific Avenue, Apt. 614, Toronto M6P 2P4, Ontario, Canada. B. J. Medical (India) 1961. Board eligible. Group, partnership, research, solo. Available April 1978.

Subbarao V. Cherukuri, M.D., 4649 Walford Road, Apt. 20, Warrensville Heights, Ohio 44128. Andhra (India) 1966. Board eligible. Group or partnership. Available July 1978.

Rene P. Grabato, M.D., 94 Amity Street, Apt. 3-F, Brooklyn, New York 11201. Santo Tomas (Philippines) 1970. Board eligible. Group, partnership, solo. Available July 1978.

Preston G. Packer, M.D., 23-09 215th Street, Bayside, New York 11360. Chicago Medical 1970. Board eligible. Group or partnership. Available July 1978.

David I. Millstein, M.D. 523 Nassau Street, Baltimore, Maryland 21208. Pittsburgh 1970. Board eligible. Group or partnership. Available July 1978.

Narendra K. Bansal, M.D., 4755 Village Lane, Toledo, Ohio 43614. S.N. Medical College (India) 1967. Board eligible. Group or partnership. Available July 1978.

UROLOGY—Modesto S. Rivera, III, M.D., 2529 Flowering Tree Lane, Gambrills, Maryland 21054. Philippines 1971. Board eligible. Group or partnership. Available July 1978.

Ned B. Stein, M.D., 12000 Fairhill Road, Cleveland, Ohio 44120. Bowman-Gray 1973. Board eligible. Group or partnership. Available July 1978.

Baikunth N. Bhargava, M.D., 353 East 17th Street, Apt. 21-C, New York, New York 10003. S.M.S. Medical College (India) 1963. Group, partnership. Available July 1978.

Malcolm Schwartz, M.D., 20 Waterside Plaza, Apt. 24-F, New York, New York 10010. CMDNJ 1972. Board eligible. Group, partnership, solo. Available June 1978.

Steven H. Paletsky, M.D., 126 C Remington Avenue, Syracuse, New York 13210. South Carolina. Board eligible. Group, partnership, associate, solo. Available January 1979.

Bhuta Dharampal, M.D., 1935 Eastchester Road, Apt. 3-A, Bronx, New York 10461. M.G.M. Medical College (India) 1970. Board eligible. Group, partnership, solo. Available July 1978.

PERSONAL ITEM

Benjamin F. Rush, Jr., M.D.

Benjamin F. Rush, Jr., M.D., professor of surgery and chairman of the Department of Surgery at CMDNJ-New Jersey Medical School at Newark, was installed as president of the New Jersey Chapter of the American College of Surgeons in December, 1977. He has occupied the Johnson and Johnson Chair in Surgery since 1970 and is surgeon-in-chief at Martland Medical Center.

Dr. Rush was educated at the University of California at Berkeley and Yale University Medical School; he served an internship and surgical residency at the New Haven Hospital and had additional surgical training at Newington Veterans Administration Hospital and Memorial Cancer Center.

He is a member of the Manuscript Review Board of *The Journal* of the Medical Society of New Jersey, serves as consulting editor for *The Journal of Surgical Oncology*, is an editor of *The Practice of Surgery*, *The American Journal of Clinical Medicine*, and *Excerpta Medica*. He is co-author of a textbook entitled *Integrated Radiation and Operation in Cancer Therapy*.

How's your KOBS?*

1. In 1977 Blue Shield of New Jersey made payments for physicians' services totaling (A) $100 million (B) $155 million (C) $125 million.

2. During November, 1977 Blue Shield received some (A) 10,000 claims per day (B) 12,000 claims per day (C) 15,500 claims per day.

3. The Elective Surgery Second Opinion Program (ESSOP) has about_____members. (A) 1,000,000 (B) 25,000 (C) 750,000.

4. Blue Shield ended 1977 (A) in the red (B) with a modest reserve (C) at the break-even point.

*(Knowledge of Blue Shield)

ANSWERS

1. In 1977 Blue Shield paid out about $155 million, the highest amount in its 35-year history.
2. We received some 15,500 claims a day during November 1977—Again, a record.
3. There are now 16 groups with a membership of about 1,000,000 persons who are covered by the Elective Surgery Second Opinion Program (ESSOP). Of these 1,000,000 persons, only 339 have sought a second opinion during the nine-month period this program has been in effect. In 123 cases consultants felt that surgery was not required at the time.
4. Blue Shield ended 1977 with a modest reserve for the first time in three years.



Blue Shield
of New Jersey

LETTERS TO THE JOURNAL

More on Medicaid

January 21, 1978

Dear Sir:

I consider Dr. Murray Strober's commentary in your last issue (74:69-71, January 1978) as a brave one. There are many such cases of Medicaid abuse of physicians in New Jersey.

The busy practitioner does not need the aggravation nor has he the time for really unnecessary correspondence and meetings.

I believe one of our medical societies, to which we all pay dues, should step in and protect the physicians, so they can practice medicine according to the Hippocratic Oath.

(signed) Theodore A. Lyras, M.D.

"The Sanctity of Life"

January 23, 1978

Dear Dr. Krosnick:

Dr. Koop, in his article published in January, 1978, seems to assume that the whole problem of deciding the care of severely defective persons can only be viewed either in terms of the sanctity of life ethic or a Nazi approach of mass murder. There are other alternatives which many persons besides Campbell and I feel should be considered because citizens facing tragedy often believe they are best. We felt obligated to respect their reasoned choices unless we could offer something better. Failure to explore alternatives is my main concern about Dr. Koop's article.

A second concern is that his article presents our report inaccurately. While we believe he and we make choices and guide patients and families much alike, he places us close to the Nazis. He stated we "starved to death 14% of the population in the newborn intensive care unit over a two-year period." We stated that 14 percent of those who died in a two and one-half year period did so sooner because further treatment seemed pointless or unwise. It was pointless in most instances because the child was soon to die in any case; it was considered unwise in some situations because of a very poor quality of life as estimated by parents, often extended family, nursing, medical, and social work staff, and assorted clergy and other advisors. He stated we are "darlings of a segment of the medical profession, darlings of the liberal press." We are no such darlings as far as we know. *The New York Times,* if that is liberal, knew about our article but reported nothing about it. He stated we "brag" about finding a way "to settle the problem of adversity." We have not bragged to the best of our knowledge. Surely, we found no way of settling such problems. In fact, we feel exceedingly humble in the face of the awesome issues we described. We found nothing new, reported nothing new. We only wrote about what was a common practice and probably has been for a long time.

We think the issues demand further consideration. Not only are diseases oppressive; sometimes, ironically, efforts of professionals to treat them oppress even more. Physicians may be tyrannical at times especially because they may act with a clear but unexamined conscience.

Incidentally, you may wish me to respond to correspondence possibly resulting from publication of my article in the same issue of *The Journal.*

(signed) Raymond S. Duff, M.D.

January 25, 1978

Gentlemen:

The Special Article, "The Sanctity of Life," by Dr. C. Everett Koop in the January 1978 issue of *The Journal* (pp. 62-67) was both lucid and courageous in presenting the facts about the problems surrounding abortion. We are fortunate to share this perceptive analysis by such an outstanding physician. Hopefully more physicians will realize their own personal responsibility in this difficult matter, and restore to themselves and the world the traditional role of Physicians to preserve, protect, and restore human life.

(signed) Paul W. Madonia, M.D.

January 27, 1978

To The Editor:

I was angered and appalled to read the "Special Article" by C. Everett Koop in the January issue of *The Journal.* Dr. Koop uses a combination of sophistry and Scriptures to condemn various "evils," such as abortion.

First let us examine Dr. Koop's attack on "logic," as he describes it. He asks if we would kill a baby a minute before birth, or a minute before that, or the minute before that? Anyone familiar with Zeno's Paradoxes is aware of the fallacy of this line of reasoning. It is by such a question that Zeno "proved" that Achilles could not defeat a tortoise in a race. It is a mental exercise carrying neither logical nor moral weight and meriting neither.

Second, I would like to point out that Dr. Koop's references to the Bible are, to many, not an appeal to the ultimate authority. Many do not share Dr. Koop's belief in the "infallibility of Scripture." If everyone obeyed all the teachings of the Bible, the world would be quite a different place. It would be amusing, were it not so sad, however, to note that those who usually speak out loudest against abortion are more often than not least willing to sympathize genuinely with those suffering the poverty and ignorance that lead to unwanted pregnancies.

I believe that the Bible was written by fallible men, and I emphasize men as opposed to women. I believe that the abortion issue is primarily a woman's issue, and it is through no whim that various women's organizations have given this matter high priority. "Our bodies, our own" is more than just a catchy phrase. It is frightening indeed to contemplate one man, one religion, or government invading a woman's body after conception and saying "now that part of your body is under our jurisdiction."

It often has struck me that it could be only the comfortable person with an isolated intellect that could see the abortion of a fetus as murder but give only lip service to "the woman who is

pregnant when she does not wish to be." Such a delicate phrase conceals tomes of agony: the loss of jobs, the dissolution of families, inadequate housing and sustenance, and a great deal of physical and mental anguish. Only such an isolated intellect or a religious zealot could be so callous.

And on the subject of religion, Dr. Koop has somehow been elevated to a rarified level from which he is able to pass judgment, incredibly enough, on "most of the main line denominations (which) have made pro-abortion statements illustrating their superficial theology, lack of morality, and insensitivity to the eventual reward for their depravity." We thus have a situation wherein C. Everett Koop sees in the Scriptures clear proscription against abortion while the faiths representing the majority of Americans do not. Perhaps what we really need is a Gospel according to Saint Everett?

Third, it may be of interest to Dr. Koop that his remarks do *not* counteract the statement that abortion is "a Roman Catholic issue." It is a Roman Catholic issue because the Right to Life Committee is financed almost exclusively by funds funneled through the various dioceses and archdioceses in the United States. It is a Catholic issue because church bulletins carry anti-abortion stories, churches sponsor "Pro-life" events, and because it is suggested that one topic for sermons should be the evils of abortion. It is not a "Catholic issue" because of the millions of Catholics, many of whom are, in fact, pro-abortion, but rather because the Roman Catholic Church Hierarchy has decided for all of us that abortion is immoral, and they will not be content until we all have to live with their view of right and wrong. Dr. Koop's remarks will not dispel that.

Fourth, to those who have read the article by Duff and Campbell in the *New England Journal of Medicine* (289:890, 1973) on the "Moral and ethical dilemmas in the special care nursery," it is obvious that these physicians and their staff agonized over their decisions in regard to severely defective newborns. Dr. Koop's treatment of these physicians is unthinking and undeserved but not unexpected in light of his other remarks.

Finally, I am a little tired of bible-beating, self-righteous types telling me that whenever I make decisions on the basis of "quality of life" I am "on the slippery slide to Auschwitz." As an American, a physician, and a Jew, I protest this facile reference to an horrendous episode of modern history which beggars any comparison, and I resent in the extreme the hint of likeness between genuine, professional and necessary decisions and Nazi extermination camps.

But my argument is not primarily with Dr. Koop, as much as I disagree with his point of view and find his arguments specious, undocumented, and sanctimonious. I am outraged at the inappropriateness of this selection as a "Special Article" in my society's medical *Journal*. Excepting the fact that I personally find no merit in the article, I find no reason for the publication in this *Journal* of remarks which consist mostly of Biblical quotations, unscientific statements, and pious exhortations. I do not object to the discussion of controversial and/or moral issues, but this article is frankly offensive to me. I do not read the Medical Society's *Journal* to be lectured on the 139th Psalm or the 44th Chapter of Isaiah. Dr. Koop has managed to offend or insult many physicians, most Protestants and Liberals and the United States Supreme Court, all in the name of his morality. The decision to print his remarks might charitably be termed ill-conceived or regrettable. Better, it might be called unforgivable, and the process which led to the decision to print them should, I believe, be reviewed.

I do not read *The Journal* to have my intelligence insulted, my professional judgments made to appear iniquitous, and my moral beliefs condemned. I believe most Society members would agree, and I further believe that *The Journal's* editorial staff would do well to take a serious look at its obligations, its purposes, and its performance.

(signed) David J. Meltz, M.D.

Hunterdon: The Other Side

January 26, 1978

Dear Dr. Krosnick:

I wish to protest your editorial "The Hunterdon Story: Freedom, Economics, and Quality" in the January 1978 issue of *The Journal* of the Medical Society of New Jersey. You have presented a one-sided picture of the "problems" at the Hunterdon Medical Center and, to compound the situation, have supported the stand taken by one of the groups involved in what is, in fact, a multi-faceted and complex problem. I further suggest that since you speak as Editor of *The Journal* of the Medical Society of New Jersey, the Society's official publication, that you, in a very real sense, speak for the Society. To have taken sides in this issue is, in my opinion, inappropriate under those circumstances.

In regard to the editorial itself, I suspect that if you had done your journalistic homework, you would have sought information from other sources and asked the following questions:

1. Why are the 27 specialists suddenly so concerned about "freedom" when they were fully aware of their employee status when they joined the full-time staff of the Hunterdon Medical Center?

2. To what extent has the enforced division of labor between family physicians and consultant specialists at Hunterdon Medical Center resulted in real savings to the patients of the Hunterdon area?

3. Why have the specialists chosen to solve an administrative hassle with the Hospital in a way that destroys the basic underpinnings of the "Hunterdon System?"

4. What is the point of view of the majority of family physicians relative to the problems between the 27 specialists and the administration? Since family physicians make up about 50% of the Medical Staff at Hunterdon Medical Center, why did you choose to ignore their opinions?

5. What will the effect of the changes proposed by the 27 specialists be on the outstanding Family Practice Residency Program at Hunterdon Medical Center (which, incidentally is approved by the LCGME, not the AAFP)?

6. Why have the citizens of the Hunterdon area sought to intervene in the suit brought by the 27 specialists against the Hunterdon Medical Center?

The answers to these and other questions might have provided your editorial with a more balanced perspective. You might then have congratulated the Hunterdon Medical Center on its pioneering efforts and offered the services of your *Journal* and the Medical Society of New Jersey in seeking solutions to the problem which would not destroy a unique experiment in Hunterdon County. And, finally, you would have been less inclined to applaud the efforts of the 27 specialists in seeking their "freedom" when, in fact, they had the opportunity to exercise that "freedom" prior to becoming a part of the Hunterdon Health Care System.

(signed) Frank C. Snope, M.D.

ANNOUCEMENTS

Gastroenterology

A day-long (8:30 a.m. to 3:45 p.m.) seminar on "Recent Advances in Gastroenterology" will be held on March 22 in the auditorium of Helene Fuld Medical Center, Trenton. Approval has been given for six credit hours in Category I of the AMA Physician's Recognition Award. Guest faculty from Hahnemann, CMDNJ, Mt. Sinai, Graduate (Philadelphia), Yale, and University of Pennsylvania medical schools will make presentations on spastic colitis, dissolution of gallstones, radiology of inflammatory bowel disease, drug-induced hepatitis, complications of cirrhosis, ultrasonography of the hepatic and biliary tracts, and CAT scan in hepatic and pancreatic diseases. Registration fee is $15. For information please communicate with Mrs. Diana Weigand, Helene Fuld Medical Center, 750 Brunswick Avenue, Trenton 08638

Smoking and Heart Disease

Under the sponsorship of the Essex County Heart Association, there will be an all-day symposium (convening at 9 a.m.) on cigarette smoking and heart disease, to be held on March 29 at the Holiday Inn, Route 10, Livingston. Included will be such topics as "How To Reduce the Risk in the Smoker," "Community Smoking Cessation Programs," "The Physician's Role in Cigarette Smoking," and others. Registration fee, which includes luncheon is $15; for students the charge is $5. Application has been made for accreditation in Category I of the AMA Physician's Recognition Award. For additional information please communicate with Mrs. Joyce Staruch, Program Director, Essex County Heart Association, 70 East Park Street, East Orange 07017.

Therapeutics in Coronary Heart Disease

On April 26, at the Holiday Inn, Route 10, Livingston, the Essex County Heart Association will present a symposium on therapeutics in coronary heart disease. The session convenes at 1 p.m. and the registration fee is $10—no charge for interns and residents. Topics to be presented include "Preservation of the Myocardium in Acute Myocardial Infarction," "Management of Angina Pectoris," and "Indications for Coronary Arteriography and Surgery." Application has been made for accreditation in Category I of the AMA Physician's Recognition Award. For information, please communicate with Mrs. Joyce Staruch, Program Director, Essex County Heart Association, 70 East Park Street, East Orange 07017.

Health Care in the Year 2000

On Friday evening, April 28, the Massachusetts Institute of Technology Club of Princeton will present a symposium on health care in the year 2000. Topics to be discussed include "Technological Advances in Health Care" and "New Developments in Delivery Systems." The session will be held at Prospect House, Princeton University Faculty Club, beginning with cocktails at 5:30 p.m., dinner at 7 p.m., followed by the program. The fee is $10 and tickets may be obtained from Ms. Marie Johnson, 665 Rosedale Road, Princeton 08540—(609) 924-1133. Application has been made for accreditation in Category I of the Physician's Recognition Award.

Graft Materials in Vascular Surgery

The peripheral vascular sections of the Englewood Hospital and the New Jersey College of Medicine (CMDNJ) will sponsor a symposium on graft material in peripheral vascular surgery, on June 5 and 6 at the Playboy Club, Great Gorge, McAfee. Designed to review the current knowledge in the use of synthetic and biologic materials as vascular substitutes, the fundamentals of physical, chemical, and hemodynamic factors will be correlated with the clinical application of these materials. The program has been submitted for accreditation. For further information, please communicate with Herbert Dardik, M.D., The Englewood Hospital, 350 Engle Street, Englewood 07631.

Chest Diseases

A "World Congress on Diseases of the Chest," sponsored by the International Academy of Chest Physicians and Surgeons, in affiliation with the American College of Chest Physicians, will be held in Kyoto, Japan, from July 2 to 7. Lectures, symposia, seminars, and round table discussions will offer a review of clinical and research work being conducted in cardiopulmonary medicine and surgery. Among the highlights are a "teaching day," including clinic visits, and a program on lung cancer. All sessions will have simultaneous translations in English and Japanese. Registration fees are $120 for ACCP members and $140 for nonmembers. For further information, please communicate with Alfred Soffer, MD., Executive Director, American College of Chest Physicians, 911 Busse Highway, Park Ridge, Illinois 60068.

Academy of Medicine Awards Dinner

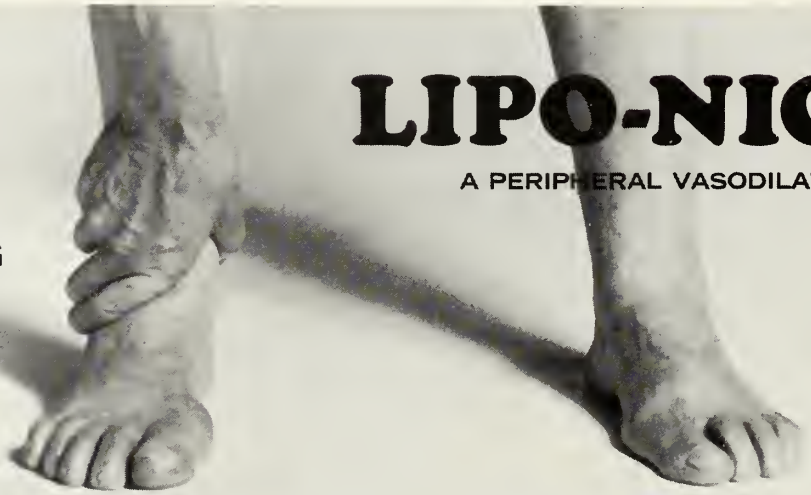
The Annual Awards Dinner of the Academy of Medicine of New Jersey will be held on Wednesday, May 10 at The Chanticler, Millburn. Dr. Victor Parsonnet, director of surgery at Newark Beth Israel Medical Center, is the 1978 Edward J. Ill Award recipient. The citizen's award will go to Gustav Lienhard, Chairman of the Board of Trustees of the Robert Wood Johnson Foundation. John P. Utz, M.D., Dean of Georgetown University School of Medicine, is scheduled to be the guest speaker. For information please communicate with the Executive Offices of the Academy, 2424 Morris Avenue, Union 07083—(201) 687-8780.

JOIN US.

AMA
AMERICAN MEDICAL ASSOCIATION

We can do much more together.

COLD FEET
LEG CRAMPS
TINNITUS
DISCOMFORT ON STANDING



LIPO-NICIN

A PERIPHERAL VASODILATOR

IMMEDIATE or GRADUAL

nicotinic acid therapy

IMMEDIATE RELEASE

LIPO-NICIN/100 mg.
Each blue tablet contains:
Nicotinic Acid ..... 100 mg.
Niacinamide ..... 75 mg.
Ascorbic Acid ..... 150 mg.
Thiamine HCL (B-1) .. 25 mg.
Riboflavin (B-2) ..... 2 mg.
Pyridoxina HCL (B-6) .. 10 mg.
DOSE: 1 to 5 tablets daily.
AVAILABLE: Bottles of 100, 500, 1000.

LIPO-NICIN/250 mg.
Each yellow tablet contains:
Nicotinic Acid ..... 250 mg.
Niacinamide ..... 75 mg.
Ascorbic Acid ..... 150 mg.
Thiamine HCL (B-1) .. 25 mg.
Riboflavin (B-2) ..... 2 mg.
Pyridoxina HCL (B-6) .. 10 mg.
DOSE: 1 to 3 tablets daily.
AVAILABLE: Bottles of 100, 500, 1000.

GRADUAL RELEASE

LIPO-NICIN/300 mg.
Each time-release capsule contains:
Nicotinic Acid ..... 300 mg.
Ascorbic Acid ..... 150 mg.
Thiamine HCL (H-1) .. 25 mg.
Riboflavin (B-2) ..... 2 mg.
Pyridoxine HCL (B-6) .. 10 mg.
In a special base of prolonged therapeutic effect.
DOSE: 1 to 3 tablets daily.
AVAILABLE: Bottles of 100, 500.

Indications: For use as a vasodilator in the symptoms of cold feet, leg cramps, dizziness, memory loss or tinnitus when associated with impaired peripheral circulation. Also provides concomitant administration of the listed vitamins. The warm tingling flush which may follow each dose of LIPO-NICIN 100 mg. or 250 mg. is one of the therapeutic effects that often produce psychological benefits to the patient. **Side Effects:** Transient flushing and feeling of warmth seldom require discontinuation of the drug. Transient headache, itching and tingling, skin rash, allergies and gastric disturbance may occur. **Contraindications:** Patients with known idiosyncrasy to nicotinic acid or other components of the drug. Use with caution in pregnant patients and patients with glaucoma, severe diabetes, impaired liver function, peptic ulcers, and arterial bleeding.

BROWN THE BROWN PHARMACEUTICAL CO., INC. 2500 West Sixth Street, Los Angeles, California 90057

Write for Literature and Samples

REFER TO PDR

MEETINGS OF MEDICAL INTEREST

This listing is compiled through the cooperation of the Committee on Medical Education of the Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s), indicated by italics—last line of each item.

Mar.

13, 20, 27 Neuroscience Conferences
11:30 a.m.-12:30 p.m.—Bergen Pines County Hospital, Paramus
(Bergen Pines County Hospital and AMNJ)

14 Cancer in New Jersey
8 p.m.—Paul Kimball Hospital Lakewood
(AMNJ and AAFP)

14 Medical Care in Emergency Department
9 p.m.—Bayonne Hospital
(AMNJ and AAFP)

14 Medical/Legal Aspects of Medicine and Surgery
12 noon—Hospital Center at Orange
(AMNJ and AAFP)

14 Dermatologic Surgery
8-10 p.m.—Schering Corporation Kenilworth
(New Jersey Dermatological Society and AMNJ)

14, 21 New Tests in Laboratory Medicine
14 12 noon-1 p.m.
21 8-9 a.m.—Garden State Community Hosp., Marlton
(Garden State Community Hospital and AMNJ)

15 Hypertension
8:30 a.m.-4:30 p.m.—Sheraton Inn Newark Airport
(Pfizer Pharmaceutical, St. Barnabas Medical Center, and AMNJ)

15 Special Problems in Neurology
7-10 p.m.—VA Hospital, East Orange
(VA Hospital and AMNJ)

15 Diagnosis and Management of the Short Child
8:30-10 p.m.—1257 Kensington Road Teaneck
(Bergen Co. Chapter, American Medical Women's Assn. and AMNJ)

15 Proper Use of Antibiotics
1 p.m.—Trenton Psychiatric Hospital
(AMNJ and AAFP)

15 Drug Interactions
1-3 p.m.—Christ Hospital, Jersey City
(Christ Hospital, AMNJ and AAFP)

15 Cardiac Grand Rounds
3-4:30 p.m.—New Jersey Medical School, Newark
(American Heart Association, N.J. Affiliate, CMDNJ, and AMNJ)

15, 22, 29 Advances in Medicine
9:30-11 a.m.—Bergen Pines County Hospital, Paramus
(Bergen Pines County Hospital and AMNJ)

15 Cardiology Conferences
4-6 p.m.—Rutgers Medical School Piscataway
(CMDNJ and AMNJ)

15, 22, 29 Courses for Psychiatrists
8-10 p.m.—Hackensack Hospital
(NJ Psychoanalytic Society and AMNJ)

15 Acupuncture
9-11 a.m.—Riverview Hospital, Red Bank
(Riverview Hospital, AMNJ and AAFP)

15, 20, 29 Psychiatry
1-3 p.m.—Ancora Psychiatric Hospital
(Ancora Psychiatric Hospital and AMNJ)

15 Pulmonary Disease Section: Medical Grand Rounds
11:30 a.m.-1 p.m.—VA Hospital, East Orange
(VA Hospital and AMNJ)

15 Sleep Disorders in Man
1-2:30 p.m.—Community Health Center (CMDNJ), Newark
(CMDNJ and AMNJ)

15 Vasodilators in the Treatment of Cardiovascular Disease
10 a.m.-2:30 p.m.—Sheraton Hotel Newark Airport
(Pfizer Laboratories and AMNJ)

16 Sexual Counseling
6:15 p.m.—Bridgeton Hospital
(Bridgeton Hospital)

16 Emotional Management in Myocardial Infarction
5-6:30 p.m.—Somerset Hospital Somerville
(Somerset Hospital and AAFP)

16, 23, 30 Cardiac Arrhythmias, Hemorrhagic Disease, Thyroid Disease
3:30-4:30 p.m.—Burlington County Memorial Hospital
(Burlington County Memorial Hospital and Hahnemann Medical College and Hospital)

16, 23 Pediatric Allergy Course
11 a.m.-12 noon—Children's Hospital of Newark
(Children's Hospital of Newark and AMNJ)

16, 23 Current Concepts in Modern Biology
4-6 p.m.—Institute for Medical Research, Camden
(Institute for Medical Research and AMNJ)

17 Psychiatric Lecture Series
1:30-5 p.m.—Trenton Psychiatric Hospital
(Trenton Psychiatric Hospital and AMNJ)

17 Brief Psychotherapy of Sexual Disorders
8:30-10:30 p.m.—Sheraton Hotel Hackensack
(New Jersey Psychoanalytic Society and AMNJ)

17 Childhood Malignancies
8:15-10:30 a.m.—Overlook Hospital, Summit
(Overlook Hospital and AMNJ)

17 The Violent Patient
5 p.m.—Holiday Inn-Deepwater
(AMNJ and AAFP)

17 Diagnosis of Anemic Patient
12 noon—Freehold Area Hospital
(AMNJ and AAFP)

Edward Waters Gynecologic Conference
17 2-7 p.m.
18 8:30 a.m.-7 p.m.
19 9 a.m.-12:30 p.m.
} Resorts International Hotel, Atlantic City
(CMDNJ, NJ Medical School and AMNJ)

18 Emergency '78—Sports Medicine and Sports Emergencies
Ninth Annual Meeting—Valley Hospital Ridgewood
(Valley Hospital)

18 Psychosomatic Syndromes in Women and Girls
9 a.m.-1:30 p.m.—Mountainside Hospital Montclair
(New Jersey Medical Women's Association and AMNJ)

21 Scanning
12 noon—St. Mary's Hospital, Orange
(AMNJ and AAFP)

21 Congestive Heart Failure
8:30 p.m.—Marriott Motor Inn Saddlebrook
(Fair Lawn Memorial Hospital, AMNJ and AAFP)

21 Northern Regional Chest Conferences
7:30-9:30 p.m.—St. Joseph's Hospital Paterson
(New Jersey Thoracic Society and AMNJ)

21 H_2 Receptor Antagonists and Ulcer Disease
11:30 a.m.-1:30 p.m.—South Amboy Memorial Hospital
(South Amboy Memorial Hospital and AMNJ)

22 **Consumer Health Education Programs**
1-4 p.m. – VA Hospital, Lyons
(*VA Hospital and AMNJ*)

22 **Recent Advances in Gastroenterology**
8:30 a.m.-4:30 p.m. – Helene Fuld Medical Center, Trenton
(*Helene Fuld Medical Center*)

24 **Bleeding Disorders**
12:30 p.m. – Hamilton Hospital, Trenton
(*AMNJ and AAFP*)

25 **CME Program**
8-10 a.m. – Newcomb Hospital, Vineland
(*University of Pennsylvania School of Medicine and AAFP*)

28 **Hepatitis**
8 p.m. – Warren Hospital, Phillipsburg
(*AMNJ and AAFP*)

28 **Less Than Radical Surgery for Potentially Curable Breast Cancer**
8-10 p.m. – Englewood Men's Club Englewood
(*Englewood Surgical Society and AMNJ*)

29 **Cancer Symposium**
9 a.m.-5 p.m. – Englewood Hospital
(*Englewood Hospital and AMNJ*)

29 **Psychopharmacology in Geriatric Psychiatry**
1:30-3 p.m. – Trenton Psychiatric Hospital
(*Trenton Psychiatric Hospital and AMNJ*)

29 **Use of Psychopharmaceuticals**
1-2 p.m. – VA Hospital, Lyons
(*VA Hospital and AMNJ*)

29 **Cerebral Vascular Disease**
3 p.m. – Ancora Psychiatric Hospital, Hammonton
(*AMNJ and AAFP*)

29 **Blood Gases: Revisited**
1-3 p.m. – Christ Hospital, Jersey City
(*Christ Hospital and AMNJ*)

29 **Symposium for Physicians on Cigarette Smoking**
9 a.m.-3:30 p.m. – Hoffmann-La Roche Nutley
(*Essex County Heart Association and AMNJ*)

Apr.

3 **Neuroscience Conferences**
10 11:30 a.m.-12:30 p.m. – Bergen Pines
17 County Hospital, Paramus
24 (*Bergen Pines County Hospital and AMNJ*)

3 **Suicidology**
8 p.m. – Community Memorial Hospital Toms River
(*AMNJ and AAFP*)

4 **New Developments in Scanning**
11 a.m. – Greystone Park Psychiatric Hospital
(*AMNJ and AAFP*)

4 **End Stage Arthritides**
8-9 a.m. – Greater Paterson General Hospital
(*Greater Paterson General Hospital and AMNJ*)

4 **Outpatient Treatment of the Asthmatic Patient**
9-11 p.m. – Burdette Tomlin Hospital Cape May Court House
(*N.J. Allergy Society and AMNJ*)

5 **Advances in Medicine**
12 9:30-11 a.m. – Bergen Pines County
19 Hospital, Paramus
26 (*Bergen Pines County Hospital and AMNJ*)

5 **Cardiology Conferences**
19 4-6 p.m. – Rutgers Medical School Piscataway
(*CMDNJ and AMNJ*)

5 **Outpatient Management of Tuberculosis**
11:30 a.m. – Rahway Hospital
(*AMNJ and AAFP*)

5 **Suicidology**
1 p.m. – Christ Hospital, Jersey City
(*AMNJ and AAFP*)

5 **Courses for Psychiatrists**
12 8-10 p.m. – Hackensack Hospital
19 (*NJ Psychoanalytic Society and AMNJ*)
26

5 **Lectures in Obstetrics/Gynecology**
6-10 p.m. – 141 S. Harrison St., E. Orange
(*New Jersey Medical School and AMNJ*)

5 **Anesthesia in Ophthalmic Surgery**
8 p.m. – St. Barnabas Medical Center Livingston
(*St. Barnabas Medical Center and AMNJ*)

5 **Drug Abuse in America**
1-2:30 p.m. – Community Health Center (CMDNJ), Newark
(*CMDNJ and AMNJ*)

5 **Cardiac Grand Rounds**
12 3-4:30 p.m. – New Jersey Medical School
19 Newark
26 (*American Heart Association, N.J. Affiliate, CMDNJ, and AMNJ*)

5 **Life Cycles in Women Psychiatrists**
8-10 p.m. – 168 Midland Avenue Montclair
(*Journal Club of North Essex and AMNJ*)

6 **Psychiatric Study**
8-10 p.m. – 312 Harding Drive South Orange
(*Group for Advanced Psychiatric Study and AMNJ*)

6 **Current Concepts in Modern Biology**
4-6 p.m. – Institute for Medical Research Camden
(*Institute for Medical Research and AMNJ*)

6 **Care of the Aged Arthritic Patient**
2-4 p.m. – Daughters of Miriam Center Clifton
(*Daughters of Miriam Center for the Aged, AMNJ and AAFP*)

6 **Current Methods of Estrogen Therapy**
13 **Medical Consequences of Chronic Spasm**
20 **Radiologic Approach to Jaundice**
27 **Update on Spine Problems**
3:30-4:30 p.m. – Burlington County Memorial Hospital, Mount Holly
(*Burlington County Memorial Hospital and Hahnemann Medical College and Hospital*)

6 **Pediatric Allergy Course**
13 11a.m.-12 noon – Children's Hospital
20 of Newark
27 (*Children's Hospital of Newark and AMNJ*)

6 **Infectious Disease Course**
8:30-9:30 a.m. – Somerset Hospital Somerville
(*Somerset Hospital and AMNJ*)

7 **Infectious Diseases**
8:30 a.m. – United Hospitals of Newark
(*AMNJ and AAFP*)

7 **Psychiatric Lecture Series**
14 1:30-5 p.m. – Trenton Psychiatric Hospital
21 (*Trenton Psychiatric Hospital and*
28 *AMNJ*)

7 **Arrhythmias, EKG Diagnosis and Treatment**
12 Noon-1 p.m. – St. Mary's Hospital Orange
(*St. Mary's Hospital and AMNJ*)

8 **Orthopedic Symposium**
8 a.m.-4:30 p.m. – Rutgers Medical School, Piscataway
(*Rutgers Medical School, and AMNJ*)

8 **CME Program**
22 8-10 a.m. – Newcomb Hospital, Vineland
(*University of Pennsylvania School of Medicine and AAFP*)

11 **Fluid and Electrolyte Balance**
12 noon – Hospital Center at Orange
(*AMNJ and AAFP*)

11 **Connective Tissue Diseases Including Vasculitis**
8-10 p.m. – Schering Corporation Kenilworth
(*New Jersey Dermatological Society and AMNJ*)

11 **Complex Problems of the Biliary Tract**
5-6 p.m. – Rutgers Medical School Piscataway
(*Rutgers Medical School, and AMNJ*)

12 **Proper Use of Blood Gases**
1:30 p.m. – John E. Runnells Hospital Berkeley Heights
(*AMNJ and AAFP*)

12 **Psychiatry**
17 1-3 p.m. – Ancora Psychiatric Hospital
19 Hammonton
26 (*Ancora Psychiatric Hospital and AMNJ*)

12 **Allergy**
1-3 p.m. – Christ Hospital, Jersey City
(*Christ Hospital and AAFP*)

12 **The Survivor Syndrome-Revisited**
8:30-10:30 p.m. – Guido's Restaurant Hackensack
(*North Jersey Psychiatric Society and AMNJ*)

12 **Infectious Disease Symposium**
8:30 a.m.-1 p.m. – Valley Hospital Ridgewood
(*Valley Hospital and AMNJ*)

12 **Annual William Burpeau Award Seminar**
6 p.m. – Manor, West Orange
(*Urology Section, AMNJ*)

13 **Modern Concepts of Rehabilitation**
1-3 p.m. – Christ Hospital, Jersey City
(*Christ Hospital and AMNJ*)

18 **Northern Regional Chest Conferences**
7:30-9:30 p.m. – Location to be announced
(*New Jersey Thoracic Society and AMNJ*)

18 **Intra-Aortic Balloon Pumping**
12 noon – St. Mary's Hospital, Orange
(*AMNJ and AAFP*)

19 **Cognitive Styles in Personal and Cultural Adaptations**
1-2:30 p.m. – St. Michael's Medical Center, Newark
(*CMDNJ and AMNJ*)

19 **The Psychodynamics of Dental Practice**
9 a.m.-4 p.m. – New Jersey Dental School Newark
(*AMNJ and CMDNJ*)

19 **Special Problems in Neurology**
7-10 p.m.—VA Hospital, East Orange
(*VA Hospital and AMNJ*)

19 **Antibodies and Their Relationship to Disease**
1-3 p.m.—VA Hospital, Lyons
(*N.J. Allergy Society and AMNJ*)

20 **Nevi and Melanoma**
6:15 p.m.—Bridgeton Hospital
(*Bridgeton Hospital*)

20 **Hypertension—Old and New Concepts**
5-6:30 p.m.—Somerset Hospital Somerville
(*Somerset Hospital and AMNJ*)

21 **Management of Hepatitis**
12 noon—Freehold Area Hospital
(*AMNJ and AAFP*)

21 **Infant of the Diabetic Mother**
8:15-10:30 a.m.—Overlook Hospital Summit
(*Overlook Hospital and AMNJ*)

22 **Seminar in Anesthesiology**
9 a.m.-3 p.m.—Saint Barnabas Medical Center, Livingston
(*Educational Council for Anesthesiology of NJ and AMNJ*)

25 **Medical/Legal Aspects of Medicine and Surgery**
8 p.m.—Warren Hospital, Phillipsburg
(*AMNJ and AAFP*)

25 **Common Duct Repair or Bypass**
8-10 p.m.—Englewood Men's Club Englewood
(*Englewood Surgical Society and AMNJ*)

26 **Evaluation of Suicidal Intent**
1-2 p.m.—VA Hospital, Lyons
(*VA Hospital and AMNJ*)

26 **Murder: Evaluation, Classification and Prediction**
3:15-4:45 p.m.—Fair Oaks Hospital Summit
(*Fair Oaks Hospital and AMNJ*)

26 **General Problems in Psychiatry**
1:15-2:45 p.m.—Marlboro Psychiatric Hospital
(*Marlboro Psychiatric Hospital and AMNJ*)

26 **Exercise and the Heart**
9:30 a.m.-4 p.m.—Holiday Inn, Paramus
(*American Heart Association, Bergen County Chapter, Bergen Pines County Hospital, and AMNJ*)

28 **Surgical Management of Inflammatory Bowel Disease**
12:30 p.m.—Hamilton Hospital, Trenton
(*AMNJ and AAFP*)

May

1 **Neuroscience Conferences**
8 11:30 a.m.-12:30 p.m.—Bergen Pines
15 County Hospital, Paramus
22 (*Bergen Pines County Hospital and AMNJ*)

1 **Arthritis**
8 p.m.—Community Memorial Hospital Toms River
(*AMNJ and AAFP*)

1 **Psychiatry**
17 1-3 p.m.—Ancora Psychiatric Hospital
30 Hammonton
(*Ancora Psychiatric Hospital and AMNJ*)

2 **Thyroid Disease**
11 a.m.—Greystone Park Psychiatric Hospital
(*AMNJ and AAFP*)

2 **Feasibility of Breast Cancer Screening**
5-6 p.m.—Rutgers Medical School Piscataway
(*Rutgers Medical School and AMNJ*)

3 **Lectures in Obstetrics/Gynecology**
6-10 p.m.—141 S. Harrison St., E. Orange
(*New Jersey Medical School and AMNJ*)

3 **Advances in Medicine**
10 9:30-11 a.m.—Bergen Pines County
17 Hospital, Paramus
24 (*Bergen Pines County Hospital and AMNJ*)

3 **Cardiology Conferences**
17 4-6 p.m.—Rutgers Medical School
(*CMDNJ and AMNJ*)

3 **Medical Humanism—Hospital Ethics**
11:30 a.m.—Rahway Hospital
(*AMNJ and AAFP*)

3 **Courses for Psychiatrists**
8-10 p.m.—Hackensack Hospital
(*NJ Psychoanalytic Society and AMNJ*)

3 **Treatment of Depression**
17 **Contemporary Issues of Psychiatric Residency Training**
1-2:30 p.m.—Community Health Center (CMDNJ), Newark
(*CMDNJ and AMNJ*)

3 **Cardiac Grand Rounds**
10 3-4:30 p.m.—New Jersey Medical School
17 Newark
24 (*American Heart Association, N.J.*
31 *Affiliate, CMDNJ, and AMNJ*)

3 **Behavioral Treatment of Smoking**
1-2 p.m.—VA Hospital, Lyons
(*VA Hospital & AMNJ*)

4 **Schizophrenia**
11 **The Impact of Genetics on Medical Practice**
18 **New Joints for Old**
25 **Impotence**
3:30-4:30 p.m.—Burlington County Memorial Hospital, Mount Holly
(*Burlington County Memorial Hospital and Hahnemann Medical College and Hospital*)

4 **Psychiatric Study**
8-10 p.m.—312 Harding Drive South Orange
(*Group for Advanced Psychiatric Study and AMNJ*)

4 **Pediatric Allergy Course**
11 11 a.m.-12 noon—Children's Hospital
18 of Newark
25 (*Children's Hospital of Newark and AMNJ*)

4 **Infectious Diseases Course**
8:30-9:30 a.m.—Somerset Hospital Somerville
(*Somerset Hospital of Newark and AMNJ*)

5 **Cerebral Vascular Disease**
8:30 a.m.—United Hospitals of Newark
(*AMNJ and AAFP*)

5 **New Advances in Diagnostic Ultrasound of the Abdomen**
12 noon-1 p.m.—St. Mary's Hospital Orange
(*St. Mary's Hospital and AMNJ*)

6- **MSNJ Annual Meeting**
9 Holiday Inn-Howard Johnson's Regency, Atlantic City

9 **Fluid and Electrolyte Imbalance**
9 p.m.—Bayonne Hospital
(*AMNJ and AAFP*)

10 **Arthritis**
1:30 p.m.—John E. Runnells Hospital Berkeley Heights
(*AMNJ and AAFP*)

10 **Annual Awards Dinner—AMNJ**
6 p.m.—Chanticler, Millburn
(*Academy of Medicine of New Jersey*)

11 **Hypersensitivity Disorders of the Lung and Asthma**
10 a.m.-12 noon—St. Michael's Medical Center, Newark
(*St. Michael's Medical Center and AMNJ*)

13 **CME Program**
27 8-10 a.m.—Newcomb Hospital, Vineland
(*University of Pennsylvania School of Medicine and AAFP*)

15 **Endotoxic/Hemorrhagic Shock**
12 noon—Hospital Center at Orange
(*AMNJ and AAFP*)

16 **Kidney Stones**
12 noon—St. Mary's Hospital, Orange
(*AMNJ and AAFP*)

17 **Special Problems in Neurology**
7-10 p.m.—VA Hospital, East Orange
(*VA Hospital and AMNJ*)

18 **Advances in Pediatrics**
6:15 p.m.—Bridgeton Hospital
(*Bridgeton Hospital*)

18 **Antithrombotic Therapy**
5-6:30 p.m.—Somerset Hospital Somerville
(*Somerset Hospital and AMNJ*)

19 **Chronic Renal Failure**
12 noon—Freehold Area Hospital
(*AMNJ and AAFP*)

19 **Immunization: Prospects for New Vaccines**
8:15-10:30 a.m.—Overlook Hospital Summit
(*Overlook Hospital and AMNJ*)

20 **Immunology in Obstetrics and Gynecology**
9 a.m.-5 p.m.—Governor Morris Inn Morristown
(*New Jersey Obstetrical and Gynecological Society and AMNJ*)

20 **The Abdomen: The CAT vs. The ECHO**
Sheraton Inn
Newark Airport
(*AMNJ*)

23 **Common Topical Agents in Dermatological Practice**
8:30-10 p.m.—645 Cambridge Road Paramus
(*Bergen Co. Chapter, American Medical Women's Association and AMNJ*)

23 **Cerebral Vascular Disease**
8 p.m.—Warren Hospital, Phillipsburg
(*AMNJ and AAFP*)

24 **Musculoskeletal Disorders and Current Therapy**
31 **Cystic Fibrosis**
1-3 p.m.—Christ Hospital, Jersey City
(*Christ Hospital and AMNJ*)

26 **Ophthalmologic Manifestations in Systemic Disease**
12:30 p.m.—Hamilton Hospital, Trenton
(*AMNJ and AAFP*)

31 **Cardiac Arrhythmias**
3 p.m.—Ancora Psychiatric Hospital

Hammonton
(*AMNJ and AAFP*)

June

1 **Infectious Disease Course**
8:30-9:30 a.m. – Somerset Hospital Somerville
(*Somerset Hospital and AAFP*)

1 **Current Radiation Therapy**
11 a.m. – Greystone Park Psychiatric Hospital
(*AMNJ and AAFP*)

2 **Lipid Metabolism**
8:30 a.m. – United Hospitals of Newark
(*AMNJ and AAFP*)

5 **Neuroscience Conferences**
12 11:30 a.m.-12:30 p.m. – Bergen Pines
19 County Hospital, Paramus
26 (*Bergen Pines County Hospital and AMNJ*)

5 **Thyroid Diseases**
8 p.m. – Community Memorial Hospital Toms River
(*AMNJ and AAFP*)

6 **Esophageal Emergencies**
5-6 p.m. – Rutgers Medical School Piscataway
(*Rutgers Medical School and AMNJ*)

7 **Advances in Medicine**
14 9:30-11 a.m. – Bergen Pines County Hospital, Paramus
(*Bergen Pines County Hospital and AMNJ*)

7 **Cardiology Conferences**
21 4-6 p.m. – Rutgers Medical School Piscataway
(*CMDNJ and AMNJ*)

7 **Urinary Tract Infection**
14 **Immunization Practices – An Update**
1-3 p.m. – Christ Hospital, Jersey City
(*Christ Hospital and AMNJ*)

7 **Cardiac Grand Rounds**
3-4:30 p.m. – New Jersey Medical School Newark
(*American Heart Association, N.J. Affiliate, CMDNJ, and AMNJ*)

7 **Psychiatry**
14 1-3 p.m. – Ancora Psychiatric Hospital Hammonton
(*Ancora Psychiatric Hospital and AMNJ*)

10 **Differential Diagnosis – The Wheezing Patient**

14 **Current Biological Concepts in Psychiatry**
1-2:30 p.m. – Community Health Center (CMDNJ), Newark
(*CMDNJ and AMNJ*)

24 **The Leukemias**
8-10 a.m. – Newcomb Hospital, Vineland
(*Newcomb Hospital and University of Pennsylvania Hospital*)

15 **Beta-Adrenergic Blocking Agent in Cardiovascular Disease**
5-6:30 p.m. – Somerset Hospital Somerville
(*Somerset Hospital and AMNJ*)

16 **Sports Medicine**
12 noon – Freehold Area Hospital
(*AMNJ and AAFP*)

16 **Neurological Diagnosis by Inspection**
8:15-10:30 a.m. – Overlook Hospital Summit
(*Overlook Hospital and AMNJ*)

20 **Northern Regional Chest Conferences**
7:30-9:30 p.m. – Beth Israel Hospital Newark
(*New Jersey Thoracic Society and AMNJ*)

20 **Acute and Chronic Leukemia**
12 noon – St. Mary's Hospital, Orange
(*AMNJ and AAFP*)

20 **Shock**
8:30 p.m. – Marriott Motor Inn Saddle Brook
(*Fair Lawn Memorial Hospital, AMNJ and AAFP*)

21 **Special Problems in Neurology**
7-10 p.m. – VA Hospital, East Orange
(*VA Hospital and AMNJ*)

27 **Current Radiation Therapy**
8 p.m. – Warren Hospital, Phillipsburg
(*AMNJ and AAFP*)

30 **Chronic Obstructive Lung Disease**
12:30 p.m. – Hamilton Hospital, Trenton
(*AMNJ and AAFP*)

Governor's Conference

ENVIRONMENTALLY RELATED CANCER HAZARDS

Saturday, May 6, 1978 **8:30 a.m. – Holiday Inn, Atlantic City** **CME Credit Hours – 4**

Welcome and Introduction – Frank R. Begen, M.D., President, MSNJ
Keynote Address – Honorable Brendan T. Byrne, Governor of New Jersey
Moderator – Seymour Charles, M.D., Conference Chairman

Part I – Detection of Environmental Cancer Hazards
Epidemiological Methods – Robert Hoover, M.D., Chief Epidemiological Section, NIH, Bethesda, Md.
Experimental Methods – Umberto Saffiotti, M.D., Chief, Cancer Cause and Research, National Cancer Institute, NIH, Bethesda, Md.
Industrial Methods – Charles Reinhardt, M.D., Director, Haskell Laboratory, E.I. duPont & Co., Wilmington, Del.

Part II – Social Responsibility in Cancer Prevention
State Agencies – Peter Preuss, Ph.D., Special Assistant to the Commissioner, New Jersey Environmental Protection Department, Trenton
The National Scene – Hon. Andrew Maguire, Congressman, 7th District, New Jersey
What Physicians Should Be Doing
Role of the Industrial Physician – John Tobin, M.D., Medical Director, American Cyanamid Company, Wayne
The Medical Profession – Frederick B. Cohen, M.D., Director of Oncology, Beth Israel Medical Center, Newark

Round Table Discussion
Press Conference

Rx for immediate payment of professional fees.



Thanks to a recent New Jersey law, professionals can now receive immediate payment for services by accepting Master Charge and VISA credit cards, both offered by United Jersey Bank.

Check the benefits:

- Costly bookkeeping and billing expenses will be sharply reduced.
- Immediate deposit credit on either Master Charge or VISA charges. No waiting for payment on personal billing or insurance claim responses.
- Patients will like the added convenience of being able to charge medical and dental expenses to their credit cards.

For more information, please contact Fred Lehmann, Jr., Director of Professional Credit Services, United Jersey Bank, P.O. Box 543, Hackensack, N.J. 07602. (201) 646-5444.

A FULL SERVICE BANK

United Jersey Bank
Member FDIC

547

TREAT THE SYMPTOMS IN THE GERIATRIC PATIENT

APATHY • IRRITABILITY
FORGETFULNESS • CONFUSION



Cerebro-Nicin® CAPSULES

A GENTLE CEREBRAL STIMULANT & VASODILATOR FOR GERIATRIC PATIENTS

Each CEREBRO-NICIN® capsule contains:

Pentylenetetrazole	100 mg.
Nicotinic Acid	100 mg.
Ascorbic Acid	100 mg.
Thiamine HCl	25 mg.
l-Glutamic Acid	50 mg.
Niacinamide	5 mg.
Riboflavin	2 mg.
Pyridoxine HCl	3 mg.

AVAILABLE: Bottles 100, 500, 1000

SIDE EFFECTS: Most persons experience a flushing and tingling sensation after taking a higher potency nicotinic acid. As a secondary reaction some will complain of nausea, sweating and abdominal cramps. The reaction is usually transient.

INDICATIONS: As a cerebral stimulant and vasodilator.

RECOMMENDED GERIATRIC DOSAGE: One capsule three times daily adjusted to the individual patient.

WARNING: Overdosage may cause muscle tremor and convulsions.

CONTRAINDICATIONS: Epilepsy or low convulsive threshold.

CAUTION: Federal law prohibits dispensing without prescription. Keep out of reach of children.

Write for literature and samples . . .

BROWN THE BROWN PHARMACEUTICAL CO.
2500 W. 6th St., Los Angeles, Calif. 90057

Lifesaving Partnership... Against Cancer Quackery

The anguish associated with cancer is compounded by the cancer quack. False hopes—harmful delays—devastating expenses—deceptive diagnoses—loss of life—these are hazards facing the cancer patient desperate enough to seek a cancer quack.

The problem: how to divert the patient from this tragic encounter.

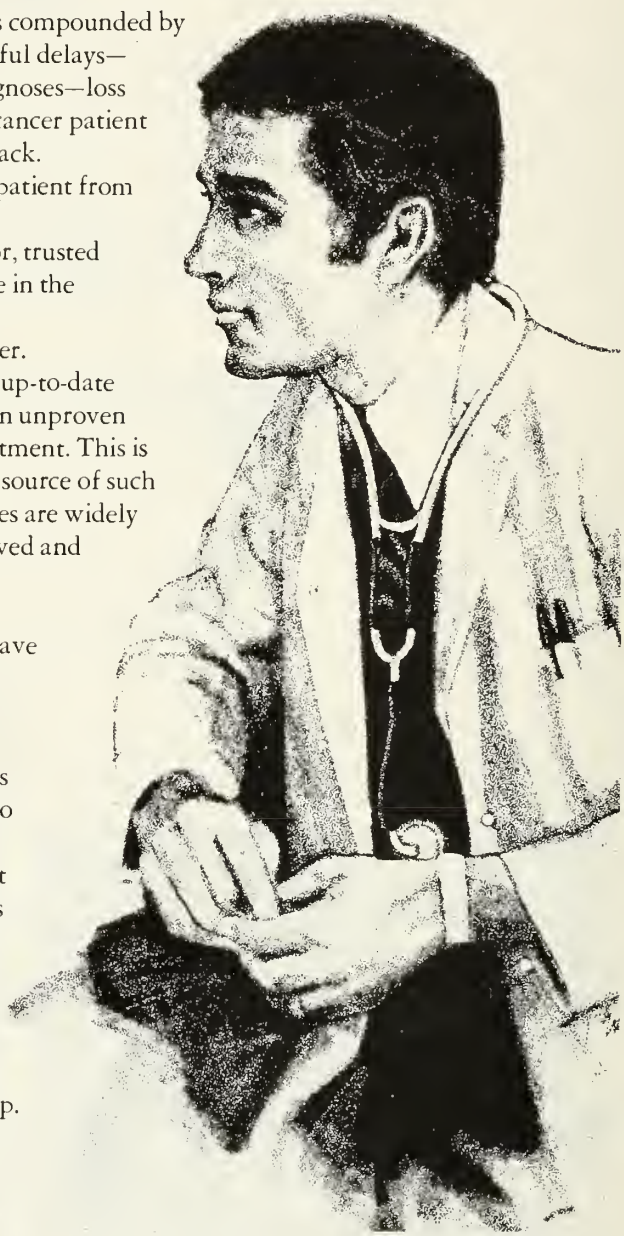
As medical guide, family counselor, trusted friend—you, *doctor,* play a major role in the fight against cancer quackery.

We are here to serve as your partner.

Our National Office maintains an up-to-date central clearinghouse for materials on unproven methods of cancer diagnosis and treatment. This is a unique operation and the principal source of such information in the country. Its services are widely used. Hundreds of inquiries are received and answered from all segments of the community, from coast to coast.

To trigger grass-roots action, we have formulated a model State Cancer Remedy Act designed to control the promotion and sale of unproven methods of cancer management. This has helped to inspire some 20 states to enact or consider legislation against cancer quackery—with active support from the medical community. Copies of the model act, as well as copies of laws in effect, are available through our National and Division offices.

In these actions against cancer quackery, as in all our efforts against cancer, ours is a lifesaving partnership.



American Cancer Society

OBITUARIES

Dr. Eugene J. Audi

Eugene J. Audi, M.D., a member of our Bergen County component, died on January 7. Born in 1914 and graduated from Columbia University College of Physicians and Surgeons in 1940, Dr. Audi practiced family medicine in the Bergen County community of Glen Rock for many years. He had been affiliated with Bergen Pines County Hospital in Paramus and Valley Hospital in Ridgewood and currently was associate attending in medicine at St. Joseph's Hospital in Paterson. Dr. Audi was a member of the American Academy of Family Practice and a Fellow of the American College of Allergists. During World War II he served with the department of medicine of the AUS.

Dr. Ralph E. Berman

A member of our Monmouth County component, Ralph E. Berman, M.D., of Keansburg, died suddenly on December 28, 1977. A native of Beckley, West Virginia, Dr. Berman was graduated from the Medical College of Virginia in 1946 and following internship at St. Francis Hospital in Pittsburgh served two years in the medical department of the Army of the United States. Upon completion of that tour of duty he came to New Jersey and established a family practice. Dr. Berman was on the attending staff at Riverview Hospital in Red Bank. He was only 54 years old at the time of his death.

Dr. M. Marvin Cohen

On January 7, M. Marvin Cohen, M.D., a member of the Passaic County component, died at Barnert Memorial Hospital. A native of Passaic County, Dr. Cohen was graduated from the University of Maryland School of Medicine, class of 1933, and took graduate work in cardiology. He had practiced general medicine in Paterson until poor health forced his retirement in 1973. He had been associate attending in medicine at Barnert Memorial Hospital. A son, Dr. Stephen Cohen, is a practicing physician in Baltimore. During World War II, Dr. Cohen served with the Second and Third Army Units in the department of medicine. He was 67 years old at the time of his death.

Dr. Salvatore J. DeCicco

At the untimely age of 53, Salvatore J. DeCicco, M.D., of Orange, died on December 21, 1977 in Orange Memorial Hospital. A native of New Jersey, Dr. DeCicco received his medical education at the University of Rome, class of 1959, and pursued an internship and residency in internal medicine at Martland Medical Center, Newark. He practiced that specialty first in Bayonne and for the past sixteen years in Newark.

Dr. Abraham M. Fiering

One of Passaic County's senior members, Abraham M. Fiering, M.D., died on January 12 of multiple injuries after the car he was driving was involved in a traffic accident. Born in Boston, and graduated from Boston University School of Medicine in 1929, Dr. Fiering came to St. Joseph Hospital in Paterson for internship. In 1930 he entered private general practice in Mountain View which he maintained until retiring in 1970. During World War II Dr. Fiering served with the Army of the United States for three years. He was 79 years old at the time of his death.

Dr. Anthony J. Girard

Word has just been received of the death on November 3, 1977 of Anthony J. Girard, M.D., of Camden County. Born in 1909 and graduated from St. Louis University School of Medicine, class of 1935, Dr. Girard practiced general medicine in Berlin for many years. He had been on the staff at West Jersey Hospital's Southern Division in Berlin and Our Lady of Lourdes Hospital in Camden. Dr. Girard was a member of the American Academy of Family Practice.

Dr. Neena Gupta

One of Passaic County's recently elected members, Neena Gupta, M.D., was found dead on December 29, 1977, in her car submerged in the Passaic River. Born in India and graduated from R.N.T. Medical College in Udaipur in 1971, she emigrated to the United States in 1973 and took a residency in internal medicine at St. Joseph's Hospital in Paterson. Currently she was practicing in Oradell. Her husband, Dr. Ramesh Gupta, also a physician, is associated with St. Joseph Medical Center in Paterson. Dr. Gupta was only 29 years old at the time of her death.

Dr. Arthur Heyman

Arthur Heyman, M,D., a member of our Union County component, died on January 10 at Veterans Administration Hospital in East Orange where he had been a patient for several months. Born in New York City in 1899 and graduated from New York University College of Medicine in 1921, Dr. Heyman pursued a career in pediatrics and was board certified in that specialty and a member of the American Academy of Pediatrics. He practiced first in Newark, then in Colonia, and moved to Rahway in 1960. Dr. Heyman had been on the pediatric staff at Newark Beth Israel Hospital and Babies Hospital in Newark and the Rahway Memorial Hospital. He had served in the department of medicine in the Army of the United States during World War II.

Dr. J. Vernon Hughes

J. Vernon Hughes, M.D., a well-known Passaic area physician, died at his home on January 4. A native of Canada, Dr. Hughes received his medical degree from the University of Toronto School of Medicine in 1917 and pursued graduate work at Bellevue Hospital in New York, prior to establishing a practice in otolaryngology in Passaic. He was a Fellow of the American College of Surgeons and a diplo-

mate in otolaryngology. Dr. Hughes had been on the staff at Passaic General Hospital and the New York Eye and Ear Infirmary. He had retired from active practice in 1972 after suffering a stroke. He was 80 years old at the time of his death.

Dr. Lawrence T. Kelly

A former member of the New York State Medical Society who transferred his membership to our Monmouth County component in 1976, Lawrence T. Kelly, M.D., died at Point Pleasant Hospital on January 11. Born in New York City in 1910, Dr. Kelly earned his medical degree from Trinity College of Dublin University, Ireland, class of 1940. After internships in Ireland and England, Dr. Kelly came to Brooklyn for a residency in surgery at Peck Memorial Hospital and in radiology at Lincoln Hospital in New York and St. Joseph's Hospital in Yonkers, becoming board certified in the latter specialty. He had been affiliated with St. Joseph's Hospital in Yonkers, Union, Seton, and Fordham Hospitals in the Bronx, and Harlem City Hospital. In 1976 he took up permanent residence at his summer home in Sea Girt and was associated with the department of radiology at Patterson Army Hospital at Fort Monmouth. He was a Fellow of the American College of Radiology and of the International College of Surgeons, and a member of the Society of Nuclear Medicine and the American Roentgen Ray Society.

Dr. William M. Kennedy

We have just learned of the sudden death on September 15, 1977 of William M. Kennedy, M.D., following a ruptured aortic aneurysm. Born in 1902 and graduated from Jefferson Medical College in 1928. After completing internship, Dr. Kennedy came to New Jersey to practice in Passaic and, for fifteen years, at the Essex County Sanatorium at Belleville. In 1948 he pursued studies in internal medicine at Washington University Medical School, becoming board certified in that specialty. More recently he was affiliated with the Veterans Administration facility at Oteen, North Carolina.

Dr. Robert M. Levinson

One of Essex County's senior members, Robert M. Levinson, M.D., of Orange, died on December 24, 1977. Born at the turn of the century in Winnipeg (Canada), Dr. Levinson earned his medical degree from the University of Toronto, class of 1923. He practiced general medicine with special interest in cardiology and was on the staff at Presbyterian Hospital in Newark. He was a member of the American Heart Association. During World War II Dr. Levinson served with the department of medicine of the Army of the United States for three years.

Dr. Ernest C. Lydecker

The former president of the medical staff and attending in the department of medicine at Chilton Memorial Hospital in Pompton Plains, Ernest C. Lydecker, M.D., died December 20, 1977 at that hospital after a long illness. A native of New Jersey, Dr. Lydecker received his medical degree from Temple University School of Medicine in 1947 and returned to New Jersey to take a residency in internal medicine at Jersey City Medical Center. He had been practicing in Butler since 1952. Dr. Lydecker was a member of our Passaic County component. During the Korean conflict he served with the medical corps of the United States Air Force. He was 77 years old at the time of his death.

Dr. Maximilian Perlman

Maximilian Perlman, M.D., a member of our Essex County component, died on November 10, 1977 after a long illness. A native of Poland, born in 1909, Dr. Perlman earned his medical degree from the Charles University in Prague in 1936. He came to the United States in the early 1940's and, after serving in the medical department of the Army of the United States, established a general practice in Nutley. He had been on the staff at St. Vincent's Hospital in Montclair. Dr. Perlman was a Fellow of the American Academy of Family Practice, and a member of the American Geriatric Society and of the Academy of Medicine of New Jersey.

Dr. Salvatore J. Rose

One of Essex County's senior members, Salvatore J. Rose, M.D., died on January 2 after a long illness. Born in New York City and graduated from New York University College of Medicine in 1929, Dr. Rose took graduate work in pathology, becoming board certified in clinical pathology. He had been pathologist at St. Michael's and Crippled Children's Hospitals in Newark and Elizabeth Memorial Hospital in Elizabeth, and was consulting endocrinologist at the Orthopedic Hospital and The Hospital Center at Orange. Dr. Rose was a member of the New Jersey Society of Clinical Pathologists and of the American Society for the Study of Neoplastic Diseases. He was 75 years old when he died.

Dr. William B. Ruocco

William B. Ruocco, M.D., died on December 11, 1977 in Paterson General Hospital after a long illness. He was graduated from Loyola University School of Medicine, class of 1933, and practiced neurosurgery in Paterson for 42 years. He had been on the staff at Preakness Hospital and at the Paterson General Hospital. During World War II, Dr. Ruocco was in the medical department of the U.S. Navy. He had been school physician for the Paterson area for ten years. Dr. Ruocco was 71 years old at the time of his death.

Dr. Nancy I. Saxe-Barry

One of Monmouth County's newer members, Nancy I. Saxe-Barry, M.D., died on December 28, 1977 at Monmouth Medical Center in Long Branch. A native of New York City, she earned her medical degree from New York Medical College in 1973 and took a rotating internship at Monmouth Medical Center. Dr. Saxe-Barry practiced general medicine in New York City and was attending physician for the Central Jersey Blood Bank in Red Bank. The daughter of a New York City physician, Dr. Irving Saxe, she was a licensed pilot and an amateur photographer.

Dr. Nelson M. Smith

A member of our Essex County component, Nelson M. Smith, M.D., died on December 24, 1977. Born in 1902 in Niagara Falls, New York, Dr. Smith was graduated from Michigan University School of Medicine in 1929 and took residencies in internal medicine at the University Hospital in Ann Arbor and Massachusetts General Hospital in Boston, becoming board certified in that specialty. He practiced in Michigan until 1940 and was assistant professor of medicine at the University during that time. In New Jersey he established an office in East Orange and was a member of the attending staffs at Orange Memorial, East Orange General, and Presbyterian Hospital in Newark. Dr. Smith was a member of the American Society of Internal Medicine.

BOOK REVIEWS

Toxic and Hallucinogenic Mushroom Poisoning.

G. Lincoff and S. Mitchel. New York, VanNostrand Reinhold, 1977. Pp. 267. ($16.95)

This comprehensive handbook on mushroom poisoning is a must for both those who are called upon to treat mushroom poisoning and for those who ingest wild mushrooms. It is not a book for the novice or first summer forager.

Reference is made to at least 375 separate papers, articles or bulletins dealing with various topics related to mushroom toxicology. These papers are brought together in one volume in ten well-organized chapters. The extensive bibliographic listings are valuable as resource references. The dates of the listings extend from at least 1885 to 1976.

A chapter is devoted to each of the seven major different groups of toxins. The pharmacology and toxicology of each toxic group is discussed in considerable detail.

Identification of the major toxic genera is dealt with. Mushroom hunters are provided with information necessary to avoid toxic mushrooms. At the end of each chapter, the specific mushroom that has been reported to contain the toxin under discussion, as well as those suspected of containing the toxin, are listed and a reference source is given where further information concerning identifying characteristics can be found.

There are 30 colored pictures and over 50 black and white sketches.

A major portion of the book is devoted to the diagnosis and treatment of mushroom poisoning. Since current text books of medicine as well as current texts dealing with therapeutics have very scanty and fragmentary chapters on mushroom toxicology, and are sadly in need of upgrading their treatment policies regarding mushroom poisonings, this text should be readily available to every facility having any dealings with poison control.

The chapter on diagnosis and treatment offers the "State of the Art" for both diagnosis and treatment. Methods that can be used and incorporated into a laboratory program and performed by laboratory technicians in helping to identify the incriminating toxins are presented.

An extensive appendix including listings of poison control centers, mushroom clubs, universities, and others that can be contacted for assistance is included. A practical chart entitled "Poisonous Look-Alikes Of Some Edible Mushrooms" also is presented, as well as charts and tables regarding many of the identifying characteristics of the mushrooms discussed.

In summary, there is much useful information concerning mushroom poisoning which has been collected from various mycology, chemistry, toxicology, pharmacology, and medical journals, and tied together to make this material accessible and usable by both the mushroom hunter and the medical profession.

The reader, especially if a novice in the field of mycology, will encounter some difficult reading in many sections. He will however, be able to find much material that never before was presented in one volume.

I recommend the handbook as a reference source for physicians, hospital emergency room personnel, and poison control centers. The serious mycophagist will find a treasure of information that is nowhere else available "under one roof."

Stanley W. Siegler, M.D.

Clinical Concepts of Fetal Heart Rate Monitoring

Marshall Klavan, M.D., Arthur T. Laver, M.D., Mary Ann Boscala, R.N. Waltham, Massachusetts, Hewlett-Packard Company, 1977. Pp. 113. Illustrated. ($10)

The Department of Obstetrics and Gynecology of the Crozer-Chester Medical Center of Pennsylvania, in cooperation with the manufacturers of the Hewlett-Packard Fetal Monitor, has published a handbook that describes the clinical concepts underlying the practical application of the most modern scientific evaluation of the fetus prior to and during labor. The text is written clearly and is a valuable contribution to the comprehension of the health of the fetus through electronic instrumentation.

The fetal monitor which was an investigative tool with the aura of a new toy now has grown into a formidable instrument or weapon with almost Frankenstein-like qualities. Because today's obstetrician practices amidst opinions, attitudes, and even decisions thrust upon him or her by patients, nurses, journalists, and lawyers, each with varying degrees of information about fetal monitoring, a handbook or manual is absolutely necessary. A more simplified handbook, distributed without charge, is available from Berkeley Bio-Engineering Company. Every department of obstetrics and gynecology should acquire copies of these handbooks for their labor rooms.

Jerome Abrams, M.D.

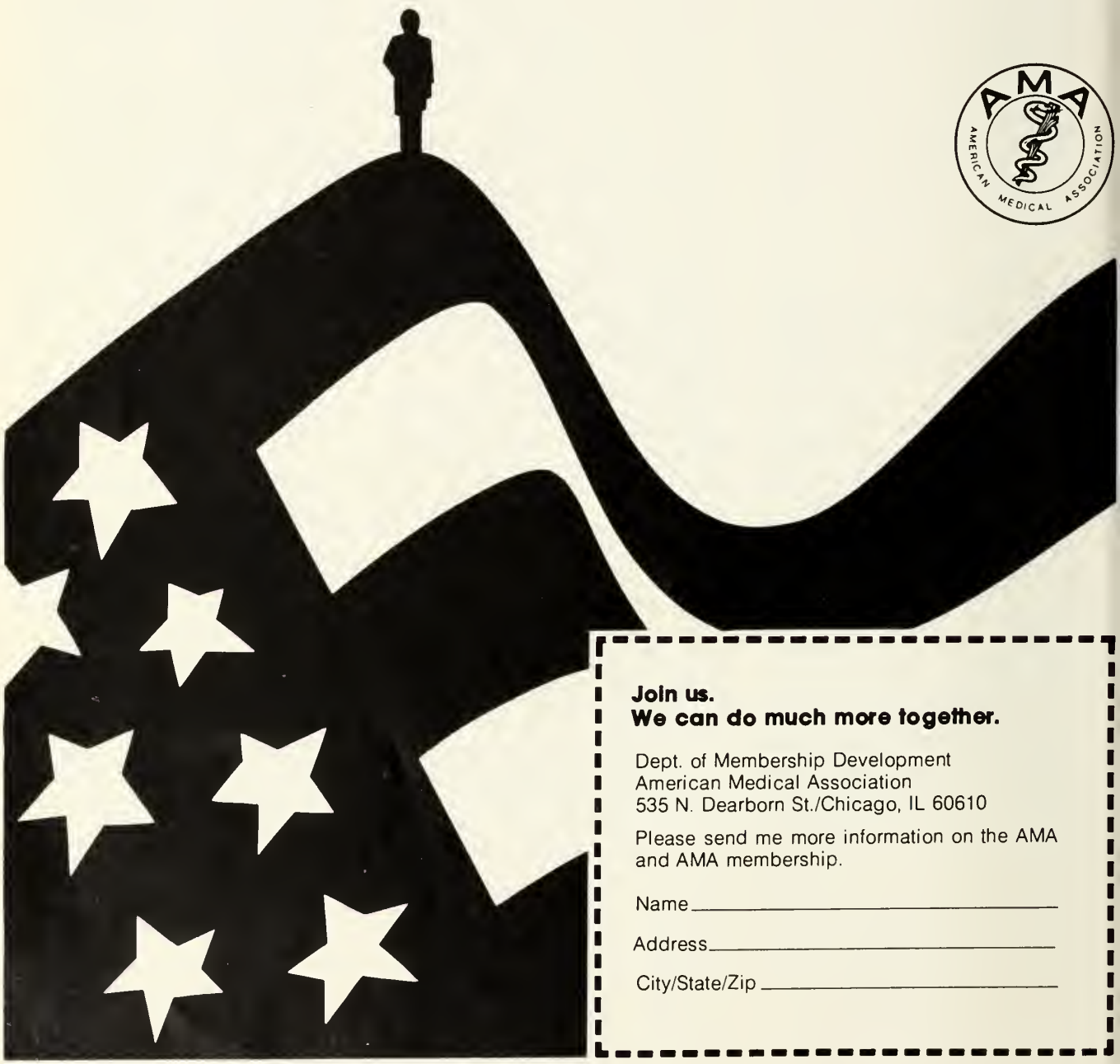
Medicine's men on the Hill

Just who are they? They're the AMA's permanent representatives to the Congress of the United States from the AMA's Washington office.

In every Congress about 10% of all legislation introduced is health related — some 2,500 bills and the number is increasing every year. The AMA lobyists serve as the profession's eyes, ears, and voice on the Hill. Keeping in day-to-day contact with the members of Congress and their staffs. Explaining and promoting the profession's views. Reporting on legislation. And providing legislators with resource material and information on medical and health subjects.

They're on the Hill to protect your interests, lobbying to retain the basic freedoms of medical practice in any government health program that might be enacted. Equally important, they lobby to insure the passage of constructive and workable health legislation for the public.

Sure, the AMA lobbies. It lobbies for the rights and interests of our profession and for quality medical care for every American. With your support, the AMA can be even more effective.



Join us.
We can do much more together.

Dept. of Membership Development
American Medical Association
535 N. Dearborn St./Chicago, IL 60610

Please send me more information on the AMA and AMA membership.

Name _____

Address _____

City/State/Zip _____

Film Program CME — Category I
212 Annual Meeting

See Page 263

DIRECTOR

NEEDED — Director, fomily practice residency. Accredited. First group of residents 7/1/78. Porticipoting NIRMP this yeor. Affiliated CMDNJ-Rutgers. Primory considerotion to be given to physicion presently an ossociate director of family practice residency program on the East Coast. Excellent potentiol. 650-bed hospital system. All specialties. Dental residency and FP residency stond olone. Solary, fringes negotioble. All replies confidential.

Write Everett R. Curran, Jr., M.D.
Choirmon, Seorch Committee
FPR Progrom
West Jersey Hospital
Voorhees, N.J. 08043

GENERAL PRACTIONERS

A retiring physician is needed in a Retirement Community located in Ocean County. Complete security, all recreational and cultural activities including golf are available. Physician can practice at his convenience, no hospital connections required.

For specific information please reply to

Box No. 42, c/o THE JOURNAL
315 West State Street
Trenton, N.J. 08618

PHYSICIAN

Major New Jersey Mental Health facility seeking physicians with special interest in Gerontology. Full or part time. Excellent salary and fringe benefits.

Send C.V. to Michoel Kurillo, M.D., Section Chief
Trenton Psychiotric Hospitol
Stotion A,
Trenton, N.J. 08625

Equal Opportunity Employer

PSYCHIATRIST

New, modern J.C.A.H. accredited child/odolescent inpotient hospital seeking child psychiatrist or psychiatrist with speciol interest in children. Full or part time. Lorge multi-disciplinory stoff presently includes 2 child psychiotrists, 2 pediotricions ond 3 Doctorotes in psychology. Dynomic progrom with university clinicol level supervision. Excellent solary ond fringe benefits. Eosy occess to New York City ond Philodelphio.

Send C.V. to Joseph Kline, M.D.
Trenton Children's Psychiotric Hospitol
Stotion A,
Trenton, N.J. 08625

Equol Opportunity Employer

PSYCHIATRIST

Major New Jersey Mental health facility seeking board eligible or board certified psychiatrists for new admissions unit and emergency coverage 8 p.m. - 8 a.m. Excellent salary and fringe benefits. Easy access to New York City and Philadelphia.

Send C.V. to Martin Weinberg, M.D.,
Medical Director
Trenton Psychiatric Hospital
Station A
Trenton, N.J. 08625

Equal Opportunity Employer

STAFF PSYCHIATRISTS, PRIMARY CARE PHYSICIANS
NEW JERSEY — ANCORA

Immediate openings for Staff Psychiatrists and Primary Care Physicians in 1100 bed JCAH and AMA Accredited Psychiatric Hopsital with 3 years approved Residency Training. Affiliated with Temple University Hospital, Department of Psychiatry. Located 30 miles from Atlantic City and Philadelphia. Salary: $28,722 to $40,713. Private Practice after duty hours permitted. Liberal fringe benefits include Professional Liability, Blue Cross, Blue Shield and Life Insurance.

Write:
Shao-Chi Yu, M.D., Ancora Psychiatric Hospital
Hammonton, New Jersey 08037 or
call (609) 561-1700, Ext. 343

THORACIC RESIDENCY

Residency in Thoracic and cardiovascular surgery available at large metropolitan center near NY city; 525 bed hospital with very active open-heart; general thoracic surgery and pacemaker programs; candidate must have completed general surgery training; salary $16,500; BC/BS and dental plan, 4 weeks vacation; comfortable apts. on premises if desired.

Write Box No. 49
c/o THE JOURNAL
315 West State Street
Trenton, N.J. 08618

PROFESSIONAL BUILDING OFFICE SPACE

JERSEY CITY—adjacent to modern hospital. 2,500 square feet, may be rented out as TWO suites of 1300 and 1200 feet. Will alter to suit. Ophthalmologist and optician located in building.
Excellent for group or solo medical or dental practice, especially pediatrics.

(201) 653-3171

OCEAN COUNTY

5 Miles South of Toms River

NOW RENTING
NEW MEDICAL AND DENTAL ARTS BUILDING
GROUND LEVEL, 1400 sq. ft. (may subdivide)

General Dentist located in building
Excellent for Group or Solo practice

For more information
CALL (201) 657-7400

RESIDENCY IN PHYSICAL MEDICINE AND REHABILITATION

Dynamic, young program with balanced academic and clinical emphasis under the supervision of 10 physiatrists. Three year program and integrated internship/residency with opportunity for research and pursuit of special interests both in medical school and private hospital settings. Stipends from $13,300 to $15,200 depending on qualifications. We will pay for visits in selected cases. Equal Opportunity/Affirmative Action Employer. Telephone or write for information to:

John F. Ditunno, Jr., M.D., Director
Department of Rehabilitation Medicine
Thomas Jefferson University Hospital
11th and Walnut Street
Philadelphia, Pa. 19107
Telephone: (215) 829-6573

YOU'VE STUDIED HARD TO BE A DOCTOR. BE A DOCTOR.

The U.S. Navy can offer you the kind of practice you studied so hard for. Devoting your time solely to the practice of medicine.

As a Navy physician, we'll give you a challenging and rewarding practice—a practice with a minimum of paperwork and no administrative overhead. It's a practice complete with excellent facilities and support personnel.

In addition, you'll find a Navy practice allows you time to spend with your family. Associate with other highly motivated physicians. Further your schooling. Even enjoy 30 days' paid vacation every year.

All this, plus a starting salary of $30,000 a year—more, depending on your experience.

If it all sounds like the practice you studied so hard for, call us for more information. Just contact:

Harriet E. Zech, Lieutenant Nurse Corps, U.S.N.
Gateway 1 Building, Newark, N.J. 07102
Telephones 201-645-2109; 201-645-2181

BE THE DOCTOR YOU WANT TO BE. IN THE NAVY.

Physicians,

consider a practice in South Carolina

* low malpractice insurance rates, * the opportunity to join a group or partner or establish a new practice in a rural or urban area, * continuing medical education through a system of Area Health Education Centers, as well as two medical schools, * lower taxes, * lower cost of living, * access to both mountains and beaches, and * a mild climate

For information about specific practice opportunities in South Carolina, contact:

rural health delivery project

Post Office Box 11188
Columbia, South Carolina 29211
(803) 779-7264

CLASSIFIED ADVERTISEMENTS

ANESTHESIOLOGIST—Board certified, currently Director of Anesthesiology and Respiratory Therapy at voluntary hospital in New York City. Experienced in Intensive Pulmonary Care. Desires to relocate. Reply Box No. 46, c/o THE JOURNAL.

GENERAL PRACTITIONER—Seeks practice opportunity, solo, group or institutional. Age 39, board experience. Available June 1978. S. H. Jone, M.D., 403 Hampton Street, Philipsburg, Pa. 16866.

GENERAL PRACTITIONER—Seeks part-time employment, evenings and weekends, South Jersey. Well trained, 25 years experience. Reply (609) 692-7621 after 4 p.m. or write Box No. 44, c/o THE JOURNAL.

INTERNIST—Seeks partnership, group, solo. Excellent university trained. Write Box No. 28, c/o THE JOURNAL.

INTERNIST—Young internist, board eligigible. Seeks group or partnership in Northern New Jersey, suburb or city. Available July 1978 and certified September 1978. David T. Klein, M.D., 4750 Bedford Avenue, Brooklyn, New York 11235. (212) 743-1839.

INTERNIST—Board certified, looking for part-time or full-time opening in clinic or Industrial Medicine in Newark or vicinity. Telephone (412) 351-1155 or write Box No. 40, c/o THE JOURNAL.

OB/GYN—Seeking partnership, associate or group. Diplomate of American Board of OB/GYN. Fellow American College of Obstetrician and Gynecology. New Jersey license. Available July 1978. Write Box No. 35, c/o THE JOURNAL.

PEDIATRICIAN—Seeks to join group, hospital, inpatient clinic, partner or assume solo practice. Board certified. New Jersey license. Write Box No. 33, c/o THE JOURNAL.

PEDIATRICIAN—Seeks position in group practice, partnership or solo in Northern or Central New Jersey. Board certified, bilingual. Available August 1978. Write Box No. 45, c/o THE JOURNAL.

PEDIATRICIAN—Seeks group, partnership, associate, hospital or emergency room. 1969 graduate of S R I (Lanka), board eligible. Available July 1, 1978. Contact Nihal S. Nagahawatte, 210 B. Davey Street, Bloomfield, New Jersey 07003.

UROLOGIST—Seeks association leading to partnership. Age 31, finishing major Philadelphia University program June 1978. Write Box No. 30, c/o THE JOURNAL.

PRACTICE AVAILABLE—Rutherford; Family and Industrial. Lucrative, unlimited potential. Central air conditioned. Fully equipped 7½ rooms, x-ray, laboratory. Will introduce. Separate residence. Hospitals nearby. Sale or Lease considered. Call (201) 438-4791.

PRACTICE WANTED—Internist wants to purchase a busy General/Internal Medical Practice in Newark or suburbs. Write Box No. 41, c/o THE JOURNAL.

PRACTICE WANTED—Internist wishes to buy an active practice or partnership with another internist. Pulmonary subspecialty, university trained. Available July 1978. Write Box No. 47, c/o THE JOURNAL.

PRACTICE WANTED—Pediatrician, experienced, desires buying an existing practice or partnership with one or more Pediatricians. Army obligation completed, excellent university center training. Write Box No. 43, c/o THE JOURNAL.

NEEDED—Dermatologist; certified or eligible to join two Certified Dermatologists in busy, interesting, pleasant New Jersey practice. 45 minutes from New York. Immediate or July 1, 1978. Send Curriculum Vitae to: Dermatology Associates, 349 East Northfield Road, Livingston, New Jersey 07039.

NEEDED—Emergency Physician—excellent opportunity, Central New Jersey, university community. Academically oriented, professionally and financially rewarding. Six-man group. Call E. V. McGinley, M.D. (201) 277-0466.

NEEDED—Trained Pulmonary Physician interested in private practice in Lakeland area of Morris County. Enclose a copy of your C.V. Write Box No. 48, c/o THE JOURNAL.

FOR SALE—Gyn/OB Equipment; Practice 6 rooms (3 examining). 15 miles New York City. Board member retiring. Write Box No. 39, c/o THE JOURNAL.

FOR SALE—Bridgewater, N.J.: Home/Office, Somerset County. 35 miles from New York, custom built, 7 room residence and 8 room office. Practice not included. Dr. John P. Scancarella, 431 Country Club Road, Bridgewater, New Jersey 08807. (201) 722-0808.

FOR SALE—Woodcliff Lake, N.J., Prestige Area. Home ideally suited for professional office and home combination. Easy access major parkways; nearby hospitals. Elegant, spacious, contemporary custom home—one-of-a-kind—on 1⅓ + acres. Professionally landscaped, offering complete privacy; flagstone patio 25 x 25. 4 bedrooms (master bedroom suite on main floor), 5 bathrooms, formal dining room, living room, huge kitchen with separate breakfast room. Magnificent panelled family room with beamed cathedral ceiling; raised hearth Italian marble fireplace, floor to ceiling. Spacious central hallway, separate laundry and utility room on main floor. Finished playroom 40 x 40 and wine cellar. 3 car garage, broad circular driveway with access to two streets—corner property; large parking area. 2 zone A/C, heat and electronic dust removers; hi fi, stereo and intercom throughout. Many walk-in closets, oversized rooms. Two many custom extras to mention. Must be seen to be appreciated. Priced for immediate sale by owner. Principals only $183,900. Call (201) 391-1745.

OFFICE SPACE—Modern building with x-ray, laboratory, five other practitioners. "Cheap" Less than going rents in area. Contact Box No. 36, c/o THE JOURNAL.

OFFICE SPACE—Bricktown; sublet for one year at reduced cost. Excellent location in commercial area. 1200 square feet with additional waiting area. Call (201) 920-9020.

OFFICE SPACE—Jackson, Ocean County, Jackson Township. Now renting. Individual buildings being remodeled for professional center. Currently, two Obstetricians, Pediatrician and an Internist occupy the space. Additional space available for rental or condominium. Call (201) 892-9499.

OFFICE SPACE—Moorestown, Victoria Medical Arts Building. New custom built medical offices for rent near Route 295 and Route 38 and Philadelphia. Good parking. Excellent location. Applying for solar heating. (609) 235-2651.

OFFICE SPACE—Ocean County; Small space with some x-ray equipment for part-time office, which could lead to full time practice. Write Box No. 50, c/o THE JOURNAL.

OFFICE SPACE—Ramsey; Serving population area of approximately 85,000. Need solo medical and dental specialist for multi-specialty building. Near all cultural and recreational facilities. 30 minutes to New York City. (201) 529-3998.

OFFICE SPACE—Roseland; An outstanding opportunity for a family practitioner or internist to share an office in Roseland, New Jersey with internationally renown physicians. Excellent academic and financial arrangements with no financial out-lay needed. Please send your curriculum vitae to Dr. Leon Smith, 190 Eagle Rock Avenue, Roseland, New Jersey 07068.

TRAINING AND TREATMENT CENTER—Individualized, medically supervised, Biofeedback treatment of stress-related conditions (tension and migraine headaches, insomnia, hypertension, bruxism, anxiety), and drug-free management of hyperactivity in children. For information phone (201) 568-0122 or write 41 Park Place, Englewood, N.J. 07631.

Information for Members—RATES:—$5.00 per insertion up to 25 words; 10 cents each additional word. Payable in advance. WORD COUNT: Count as one word all single words, two initials of a name, each abbreviation, isolated numbers, groups of numbers, hyphenated words. Count name and address as five words, telephone number as one word, and "Write Box No. 000, c/o THE JOURNAL" as six words. COPY DEADLINE: Fifth of preceding month.

NEW YORK UNIVERSITY POST-GRADUATE MEDICAL SCHOOL

announces the following AMA and AAFP approved courses

ADVANCES IN CLINICAL CARDIOLOGY FOR THE PRACTICING PHYSICIAN

Thursday-Saturday
March 30 to April 1, 1978

Fee: $250
8:00 AM-5:00 PM

Course Director: Dr. Kenneth Krauss

This course is specifically designed for primary physicians and internists. The objective is to improve and update basic knowledge and clinical skills required for management of patients with common cardiovascular disease syndromes. Emphasis is on topics of major importance and current interest with an orientation to practical considerations of diagnosis and treatment in the office and hospital setting.

Morning Sessions

Core curriculum review lectures with special emphasis on recent developments of practical clinical importance.

Afternoon Sessions

Part I: *Patient Management Problems* — Case studies illustrating approaches to common clinical problems in office and hospital practice.

Part II: *Demonstration Workshops* — Pacemakers, auscultation update, treatment of hypertension, cardiopulmonary resuscitation, exercise stress testing, echocardiography and Holter monitoring, catheterization laboratory, peripheral vascular examination, management of arrythmias, cardiac rehabilitation center visit, open elective workshop.

(22 AMA & AAFP hours)

ADVANCES IN CLINICAL GASTROENTEROLOGY FOR THE PRACTICING PHYSICIAN

Monday-Wednesday
April 10-12, 1978

Fee: $250
8:00 AM-5:00 PM

Course Director: Dr. Arthur E. Lindner

This course is specifically designed for family physicians and internists who are not gastroenterologists. The objective is to improve and update basic knowledge and clinical skills required for management of patients with common gastrointestinal problems. Emphasis is on topics of major importance and current interest with an orientation to practical considerations of diagnosis and treatment in the office and hospital setting.

Morning Sessions

Core curriculum review lectures with special attention to recent developments of practical clinical importance.

Afternoon Sessions

Part I: *Patient Management Problems* — Case studies illustrating approaches to common clinical problems in office and hospital practice.

Part II: *Clinical Workshops* — Upper Gastrointestinal Endoscopy; Colonoscopy; Endoscopic Retrograde Caanulation of the Pancreatico-biliary tree; G.I. Radiology (film interpretation); Small Bowel Biopsy; Abdominal Ultrasound; Sigmoidoscopy and Management of Common Anorectal Problems; Open Elective Workshop.

(22 AMA & AAFP hours)

ELECTROCARDIOGRAPHY

Monday-Wednesday
April 3 to 5, 1978

Fee: $250
8:00 AM-5:00 PM

Course Director: Dr. George Bear

A practical, intensive review of office electrocardiography stressing basic electrophysiology as an approach to accurate diagnosis. Topics are presented in the context of frequently encountered clinical problems. Presentations include case studies and unknown EKG's for self-assessment evaluation which illustrate the usefulness and limitations of the electrocardiogram as a clinical tool. Common problems that interfere with correct EKG interpretations will be discussed in detail and practical solutions outlined. For internists and primary physicians.

Discussions Include:

- The Normal Electrocardiogram
- The Electrocardiogram of Coronary Artery Disease
- Tachyarrhythmias
- Conduction Abnormalities
- Bradyarrhythmias
- Chamber Enlargement
- Drug and Electrolyte Effects
- WPW Syndrome

(21 AMA & AAFP hours)

INTERPRETATION OF CLINICAL LABORATORY DATA FOR PRIMARY PHYSICIANS

Wednesday-Friday
April 19-21, 1978

Fee: $250
8:00 AM-5:00 PM

Course Directors: Drs. Harold S. Kaplan and Paul P. Sher

A practical survey of the laboratory repertoire utilized in the diagnosis and evaluation of patients with diseases commonly encountered in office practice. Topics include enzymology in cardiovascular disease; evaluation of hyperlipidemias; office examination of urine; thyroid disease, diabetes, and hypoglycemia; laboratory investigation of liver disease; hepatitis update and new developments in bacterial and viral infections. Guidelines for choosing office laboratory procedures are considered.

(22 AMA & AAFP hours)

* * *

For information, write ar phone: Registratian Department, NYU Past-Graduate Medical Schaol, 550 First Avenue, NYC, NY 10016; 212-679-3200, Ext. 4038.

* * *

Special Note: Tuition reduced 10% for each additianal caurse. Tuition includes syllabus, cantinental breakfasts, refreshments, lunches.

* * *

Accreditation: All caurses approved far AMA Category I credit hours and AAFP prescribed haurs.

Medical Society of New Jersey.
Journal



The Library
Acquisitions Division
Univ. of Calif., San Francisco
San Francisco, Calif. 94143

April 1978

Journal of the Medical Society of New Jersey

Coronary Artery Disease in Young Adults
R. S. Cuasay, M.D., et al.

Primary Repairs of Flexor Tendons
J. B. Massengill, M.D.

Perforating Ocular Injuries
B. A. Malizman, M.D., et al.

Complete Table of Contents on Page 290

Check List For Savings

Under The Medical Society of New Jersey

Endorsed Insurance Plans

NEW HIGHER LIMITS	$4600 Monthly Accident and Health
TAX DEDUCTIBLE PREMIUM	$5,000 Professional Overhead Expense Plan
INCREASED FROM $150,000	$250,000 Term Life Insurance
$250,000 COVERAGE	Quarter-Million-Dollar Major Expense Plan
HIGH LIMITS— LOW COSTS	$200,000 Six Point High-Limit, Accidental Death, Dismemberment, Total Disability
EXTRA MONEY WHEN HOSPITALIZED	$60 a day Hospital Money-Indemnity Plan
$7500—15%	$7500 Tax-deductible KEOGH Plan and Corporate Master Plan

CHECK THIS LIST AGAINST YOUR COVERAGES . . . ASK FOR FREE NO-OBLIGATION INFORMATION ABOUT THE NEW MONEY-SAVING PLANS!

E. & W. BLANKSTEEN AGENCY, INC.

E. & W. BLANKSTEEN

75 MONTGOMERY STREET • JERSEY CITY, N.J. 07302

(201) 333-4340

We've Perfected The Business Side Of Medicine.



Let's face it. You've spent years perfecting your medical skills and developing your practice. You've selected only the top professionals for your staff. And AISC understands.

That's why we've perfected PFAMS, a complete Patient Financial Accounting Management System that virtually eliminates the time consuming, tedious task of handling the ever-increasing volume of paperwork associated with your practice.

Using only a video display, a keyboard, and a high-speed printer located in your office linked to our computer with a telephone line, AISC gives you a responsive, affordable business management system that provides you and your staff with instantaneous statement and insurance form processing, financial record keeping, appointment scheduling and much, much more, whether you're a solo practitioner or a multi-specialty group or clinic.

Call AISC for a free brochure or a demonstration.

AISC...We've perfected the business side of medicine.

aiscorp.

MEDICAL MANAGEMENT SYSTEMS

Bernards Professional Center
150 North Finley Avenue
Basking Ridge, N.J. 07920

(201) 221-0900

THE MEDICAL SOCIETY OF NEW JERSEY

Founded July 23, 1766

Officers and Trustees

PRESIDENT
Frank R. Begen, M.D. (Bergen) — Teaneck
PRESIDENT-ELECT
Charles S. Krueger, M.D. (Burlington) — Mount Holly
FIRST VICE-PRESIDENT
Alfred A. Alessi, M.D. (Bergen) — Hackensack
SECOND VICE-PRESIDENT
George L. Benz, M.D. (Essex) — Newark
IMMEDIATE PAST-PRESIDENT
John S. Madara, M.D. (Salem) — Salem
SECRETARY
Arthur Bernstein, M.D. (Essex) — Maplewood
TREASURER
Rudolph C. Gering, M.D. (Mercer) — Trenton

Trustees

CHAIRMAN
James S. Todd, M.D. (1980) (Bergen) — Ridgewood
Meyer L. Abrams, M.D. (1979) (Burlington) — Willingboro
Augustus L. Baker, Jr., M.D. (1979) (Morris) — Dover
Edward G. Bourns, M.D. (1978) (Union) — Westfield
Frank Campo, M.D. (1978) (Mercer) — Trenton
S. Thomas Carter, Jr., M.D. (1978) (Camden) — Collingswood
John J. Crosby, Jr., M.D. (1978) (Hudson) — Jersey City
Anthony P. DeSpirito, M.D. (1979) (Monmouth) — Neptune City
Sherman Garrison, M.D. (1980) (Cumberland) — Bridgeton
Armando F. Goracci, M.D. (1979) (Gloucester) — Woodbury
William Greifinger, M.D. (1978) (Essex) — Belleville
Richard E. Lang, M.D. (1978) (Passaic) — Passaic
Howard D. Slobodien, M.D. (1978) (Middlesex) — Perth Amboy
Frank Y. Watson, M.D. (1980) (Essex) — Montclair

Councilors

FIRST DISTRICT
(Essex, Morris, Union, and Warren Counties)
Merton L. Griswold, Jr., M.D. (1978) — Plainfield
SECOND DISTRICT
(Bergen, Hudson, Passaic, and Sussex Counties)
John L. Olpp, M.D. (1980) — Englewood
THIRD DISTRICT
(Hunterdon, Mercer, Middlesex, and Somerset Counties)
Albert F. Moriconi, M.D. (1979) — Trenton
FOURTH DISTRICT
(Burlington, Camden, Monmouth, and Ocean Counties)
Frederick W. Durham, M.D. (1978) — Haddonfield
FIFTH DISTRICT
(Atlantic, Cape May, Cumberland, Gloucester, and Salem Counties)
John A. Surmonte, M.D. (1980) — Penns Grove

AMA Delegates

Louis F. Albright, M.D. (1977) — Spring Lake
George L. Benz, M.D. (1978) — Newark
Karl T. Franzoni, M.D. (1978) — Trenton
Frank J. Hughes, M.D. (1978) — Camden
Emanuel M. Satulsky, M.D. (1978) — Elizabeth
James S. Todd, M.D. (1979) — Ridgewood
Robert E. Verdon, M.D. (1978) — Cliffside Park

April 1978

Publication Committee

Daniel B. Roth, M.D., *Chairman*
Julio C. del Castillo, M.D.
John F. Marshall, M.D.

Editor

Arthur Krosnick, M.D.

Associate Editors

William A. Dwyer, Jr., M.D.
Bernard D. Pinck, M.D.
Richard H. Rapkin, M.D.

Assistant Editor

Marjorie D. Treptow

Advertising Office

Bettie N. Cookson

Executive Director

Vincent A. Maressa

Executive Director Emeritus

Richard I. Nevin

Manuscript Review Board

Jerome Abrams, M.D.
Francis P. Chinard, M.D.
Alfonse Cinotti, M.D.
Arthur Goldfarb, M.D.
Martin Goldfield, M.D.
Robert A. Goldstone, M.D.
M. Jay Goodkind, M.D.
Murray Kahn, M.D.
Sidney Ketyer, M.D.
Bernard J. Koven, M.D.
Henry R. Liss, M.D.
Hugh F. Luddecke, M.D.
Geobel A. Marin, M.D.
Murray Nussbaum, M.D.
Victor Parsonnet, M.D.
Leonard Policoff, M.D.
Irwin Pollack, M.D.
Edwin L. Rothfeld, M.D.
Benjamin Rush, M.D.
Mark M. Singer, M.D.
Leon G. Smith, M.D.
Sheldon D. Solomon, M.D.
Lloyd N. Spindell, M.D.
A. Arthur Sugerman, M.D.

Published monthly (since 1904), under direction of the Committee on Publication, by The Medical Society of New Jersey, 315 West State St., Trenton, N.J. Printed in East Stroudsburg, Pa. by the Hughes Printing Co. Whole number of issues 884. Member's subscription ($5) is included in Society dues. Rates for nonmembers, $10; outside USA add $4 for postage. Single copies, $1. Address communications to *The Journal*, MSNJ, P.O. Box 904, Trenton, N.J. 08605 (609) 394-3154. Second class postage paid at Trenton, N.J. and additional entry office.

Copyright 1978 by The Medical Society of New Jersey.

Time is the test of all things.

1954
1978



BRIEF SUMMARY

Indications: Oral potassium therapy for the prevention and treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. May be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

Contraindications: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause.

Precautions: Potassium intoxication by oral administration rarely occurs in patients with normal kidney function, however, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentrations of potassium ion may cause death through cardiac depression, arrhythmias or arrest. This drug should be used with caution in the presence of cardiac disease.

In hypokalemic states, especially in patients on a low-salt diet, hypochloremic alkalosis is a possibility that may require chloride as well as potassium supplementation.

Adverse Reactions: Nausea, vomiting, diarrhea, and abdominal discomfort have been reported. The most severe adverse effect is hyperkalemia.

Overdosage: Potassium intoxication may result from overdosage of potassium or from therapeutic dosage in conditions stated under "Contraindications". Hyperkalemia, when detected, must be treated immediately because lethal levels can be reached in a few hours.

Kaon® Elixir
(potassium gluconate)
20 mEq per 15 ml

WARREN-TEED
LABORATORIES, INC.
DIVISION OF **ADRIA LABORATORIES INC.**
COLUMBUS, OHIO 43215

April 1978

Journal of the Medical Society of New Jersey

America's First Medical Society

Volume 75
Number 4

Pages 287-370

EDITORIALS

296 Elton Wallace Lance, M.D. — 1898-1978

296 Protection of the Consumer from Radiation

297 Editorial Policy

ORIGINAL ARTICLES

298 Coronary Artery Disease in Young Adults: Surgical Experience
Ramon S. Cuasay, M.D.; et al., Browns Mills

307 Primary Repairs of Flexor Tendons in "No-Man's Land"
James B. Massengill, M.D., Convent Station

314 Bleomycin-Induced Injury to the Hands
Daniel Malcolm, M.D., Teaneck

317 Perforating Ocular Injuries
B.A. Maltzman, M.D.; K. Eng., M.D.; A.A. Cinotti, M.D., Newark

CASE REPORTS

323 Azathioprine-Induced Megaloblastic Erythropoiesis
L. Torres, M.D.; S. Trubowitz, M.D.; S. Davis, M.D., East Orange

329 Tracheo-Innominate Artery Fistula
R. J. Lewis, M.D.; N. B. Ranade, M.D., New Brunswick

335 Pneumatosis Coli: Successful Therapeutic Approach
H. Chon, M.D.; E. J. Petrella, M.D.; J. F. Centrone, M.D., Cherry Hill

NON-INVASIVE CARDIOLOGY

339 Case Presentation
S. L. Arbeit, M.D., Jersey City; I. L. Rubin, M.D., New York

DOCTORS' NOTEBOOK

341 Trustees' Minutes: February 19, 1978

345 Report of the Nominating Committee

347 Report from the Foundation

347 CMDNJ Notes

349 Annual Meeting: Daily Schedule
Scientific Sessions
Motion Picture Theater
Governor's Conference
Housing Application

353 Physicians Seeking Location in New Jersey

357 **LETTERS TO THE JOURNAL**

359 **CME INFORMATION**

359 **CME CALENDAR**

363 **OBITUARIES**

365 **BOOK REVIEWS**

212th Annual Meeting
May 6-9, 1978
Atlantic City

Cover

The photograph used on the cover was taken by M. Jay Goodkind, M.D., Trenton cardiologist.

PROSTAGLANDINS IN CARDIOVASCULAR AND RENAL FUNCTION

MAY 8-9, 1978

Sheraton-Valley Forge Hotel
King of Prussia, PA

20th Annuol A. N. Richards Symposium
spansared by
The Physiologicol Saciety af Philadelphio
ond the
Jeffersan Medicol College

The 2-doy symposium is devated ta explaring the rale af prostaglandins in cardiovasculor ond renol functions. Dr. Jahn Vane will deliver the A. N. Richords Lecture on "Prastocyclin, plotelets ond vosculor diseose". Included among the twenty-eight quest speakers ore P. Needlemon, J. C. McGiff, P. Hedqvist, J. Kokka.

Accreditation: The sympasium meets the criteria for 12 credit haurs in Categary 1 af the Physicion's Recagnitian Award of the American Medical Association.

Registration fee:

Members of The Society	—free
Non-members	—$35
Fellaws, Interns, Residents	—$15

For program and registration form write or phone:

Dr. Alexander Scriabine
Merck Institute for Therapeutic Research
West Point, PA 19486
(215) 699-5311

NEW YORK UNIVERSITY POST-GRADUATE MEDICAL SCHOOL

Department of Pediatrics
offers the following AMA Category I approved seminar

ANNUAL REVIEW OF SELECTED TOPICS IN PEDIATRICS

Course Directors: Drs. Joseph Dancis and Alfred L. Florman

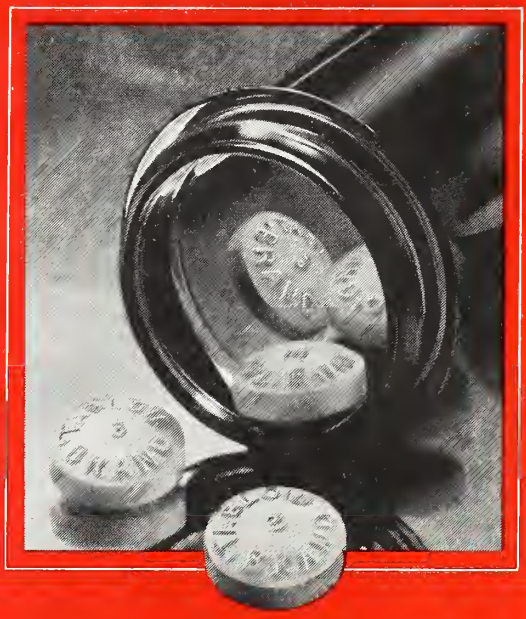
Saturday and Sunday June 3 and 4, 1978

This caurse reviews and updotes knawledge of basic cancepts ond recent developments in selected oreos af clinical pediatrics. It is designed far pediotricions and ather physicians wha core far infonts, children ond odalescents. Special emphosis is given ta procticol consideratians af diagnosis and management. This yeor's tapics include cordiology, infectious diseoses, nutrition, metobalism and genetics. Moteriol is presented through lectures, audiovisuol aids, ponel interactions, question and onswer sessions, informol "shaptolk" luncheons and an annatated bibliagrophy. The text af key slides used ta illustrote lectures will be distributed. There will be an appartunity for self-assessment af infarmotianal strengths and weaknesses through pre- and past testing.

Tuition is $185.

Accreditation: 14 haurs credit in Category I far the Physicion's Recognitian Award af the AMA

Far informatian, write or phone: Registratian Department, NYUPGMS, 550 First Avenue, NYC, NY 10016; 212-679-3200, Ext. 4038.



EMPIRIN®
COMPOUND
WITH CODEINE

Each tablet contains: aspirin, 227 mg; phenacetin, 162 mg; and caffeine, 32 mg; plus codeine phosphate in one of the following strengths: #4—60 mg (gr 1); #3—30 mg (gr ½); #2—15 mg (gr ¼); and #1—7.5 mg (gr ⅛). (Warning—may be habit-forming). C III

Wellcome | Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

We'll be there...

at the annual meeting of The Medical Society May 6 to 8 in Atlantic City.

Watch for our display in the lobby of the Holiday Inn. It will tell you the location of our meeting room where members of our professional relations staff will welcome you and will be happy to answer any questions you may have regarding Blue Shield.

We'll be pleased to discuss our new fixed-fee program called the Series 14/20, the Medical Necessity program–or any other pertinent subject.

We look forward to greeting you.

Jim Zotti
Bob Marino
Joe Martone
Bill Barnaskas
Muriel Shymanski



Blue Shield
of New Jersey

Information for Readers and Contributors

The Journal, the official organ of the Medical Society of New Jersey is published monthly under the direction of the Committee on Publication. Released the first week of the month, a copy is sent to each member of the Society. The goals of *The Journal* are educational and informational. All material published in *The Journal* is copyrighted by the Medical Society of New Jersey.

CONTENT

The educational content of each issue appears as original *scientific articles*, based on research, original concepts relative to epidemiology of disease, and treatment methodology; *case reports*, based on unusual clinical experiences; *review articles; clinical notes*, succinct items on some aspect or new observation or technique of a case experience; and *special articles*, which may include evaluations, policy and position papers, and reviews of non-scientific subjects. Material submitted here is for exclusive publication in *The Journal*. Upon request of the author, the Committee on Publication may give permission to authors of original material to reprint articles elsewhere with appropriate credit to *The Journal*. The principal aim in the preparation of contributions should be relevance to diagnosis and treatment and to education of patients and professionals. Preference will be given to professional authors from New Jersey and to out-of-state lecturers who submit a suitable manuscript based on a presentation made in New Jersey.

ASSIGNMENT OF COPYRIGHT

In compliance with the Copyright Revision Act of 1976 (effective January 1, 1978) a transmittal letter or a separate statement accompanying material offered to *The Journal* of the Medical Society of New Jersey must contain the following language and must be signed by *all* authors:

"In consideration of *The Journal* of the Medical Society of New Jersey taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to the Medical Society of New Jersey, in the event that such work is published in *The Journal, MSNJ.*"

Individuals, universities, libraries, and other non-profit organizations will be permitted to photocopy articles in *The Journal* for non-commercial, educational purposes.

SPECIFICATIONS

Manuscripts—Manuscripts must be typewritten double-spaced on 8-1/2 by 11" paper with margins of at least one inch. The original and one copy should be submitted to the Editors. Authors must understand that the material submitted is for the exclusive use of *The Journal* and will not be published elsewhere except in abstract form or with the consent of the Committee on Publication. Statistical methods used in articles should be identified. Acknowledgments of aid in preparation of manuscripts will not be made, except for specific preparation of an essential part of the manuscript (such as statistical data or special photographs).

Tables and Illustrations—Tables must be typewritten, double-spaced on separate 8-1/2 by 11" sheets. Each table must have a title and number. Symbols for units should be confined to column headings, and abbreviations, properly explained, should be kept to a minimum. Illustrations or figures should be of professional quality black-and-white glossy prints. They should be unmounted and not damaged by staples or paper clips. The name of the author, figure number, and the top of the figure should be noted on a label attached to the back of each illustration. Where photographs of patients are used, the subjects should not be identifiable or publication permission, signed by the subject or responsible person, must be included with the photograph. Material taken from other publications must give credit to the source; written permission for republication from the original publisher must be submitted. The cost of color photographs must be borne by the author.

Title Page—The title page should include the full name, degrees, and affiliations of all authors, and the name and address of the author to whom reprint requests should be sent.

Summary—The summary of the article should not exceed 250 words. It should contain the essential facts in such a form as to be understandable without reference to the text. Meticulous writing of this section is essential.

Abstract—The author should submit a 50-word abstract to be used at the beginning of the article.

Drug Names—Generic names should be used with proprietary names indicated parenthetically or as a footnote with the first use of the generic name. Proprietary names of devices should be indicated by the registration symbol—®.

References—References, which should not exceed 35 citations except in review articles, should be cited consecutively in the text by numbers in parentheses at the end of the sentence. The reference list should be typed double-spaced on separate 8-1/2 by 11" sheets in the numerical order in which they are first cited in the text. The style of references is that of *Index Medicus*.

Examples:

Goldwyn RM: Subcutaneous mastectomy. *J Med Soc NJ* 74:1050-1052, 1977.

Dixon WJ, Massey FJ: *Introduction to Statistical Analysis*. New York, McGraw-Hill, 1969, pp 00-00.

Accident Facts. Chicago, Illinois, National Safety Council, 1974.

PUBLICATION POLICY

Receipt of each manuscript will be acknowledged and a copy delivered to the Editor who refers the paper to one or more members of the Manuscript Review Board, who render an opinion to the Editor. The final decision is reserved for the Editor. No direct contact between the reviewers and the authors will be permitted, but authors will be informed of the reviewers' comments. The publication lag for original articles may be six months or more. Galley proofs will be submitted to the author for correction of typographical errors. Editorial changes which are made in the interest of clarity or good grammar may not be altered by the author. Reinsertion of redundant material deleted by the Editor is not permitted.

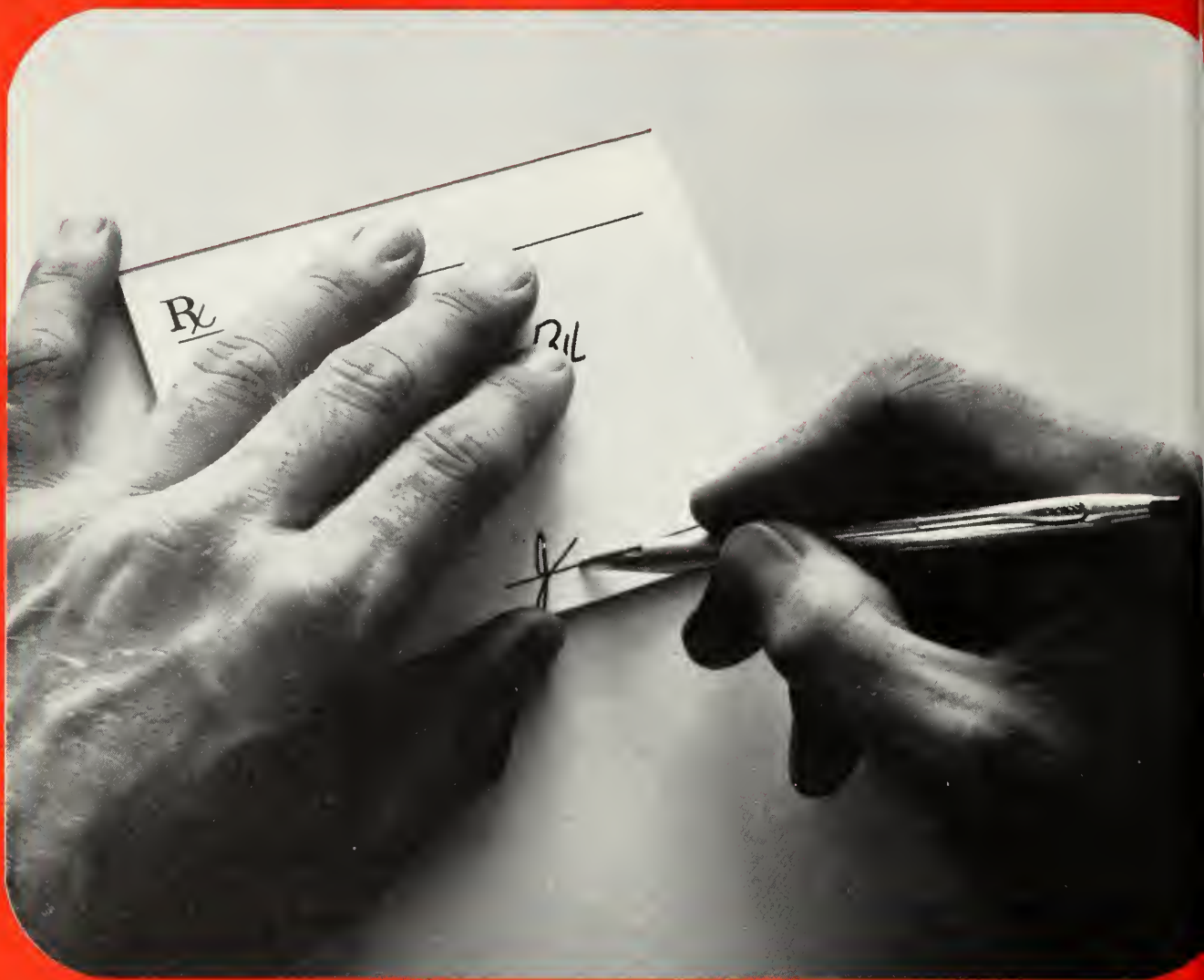
REPRINTS

Reprints may be ordered after the author is notified that his article has been selected for a specific issue of JMSNJ. A check for the cost of reprints including remake charge if order is received after due date must accompany the order.

COMMUNICATIONS

All communications should be sent to the Editor, *The Journal*, MSNJ, P.O. Box 904, Trenton, New Jersey 08605.

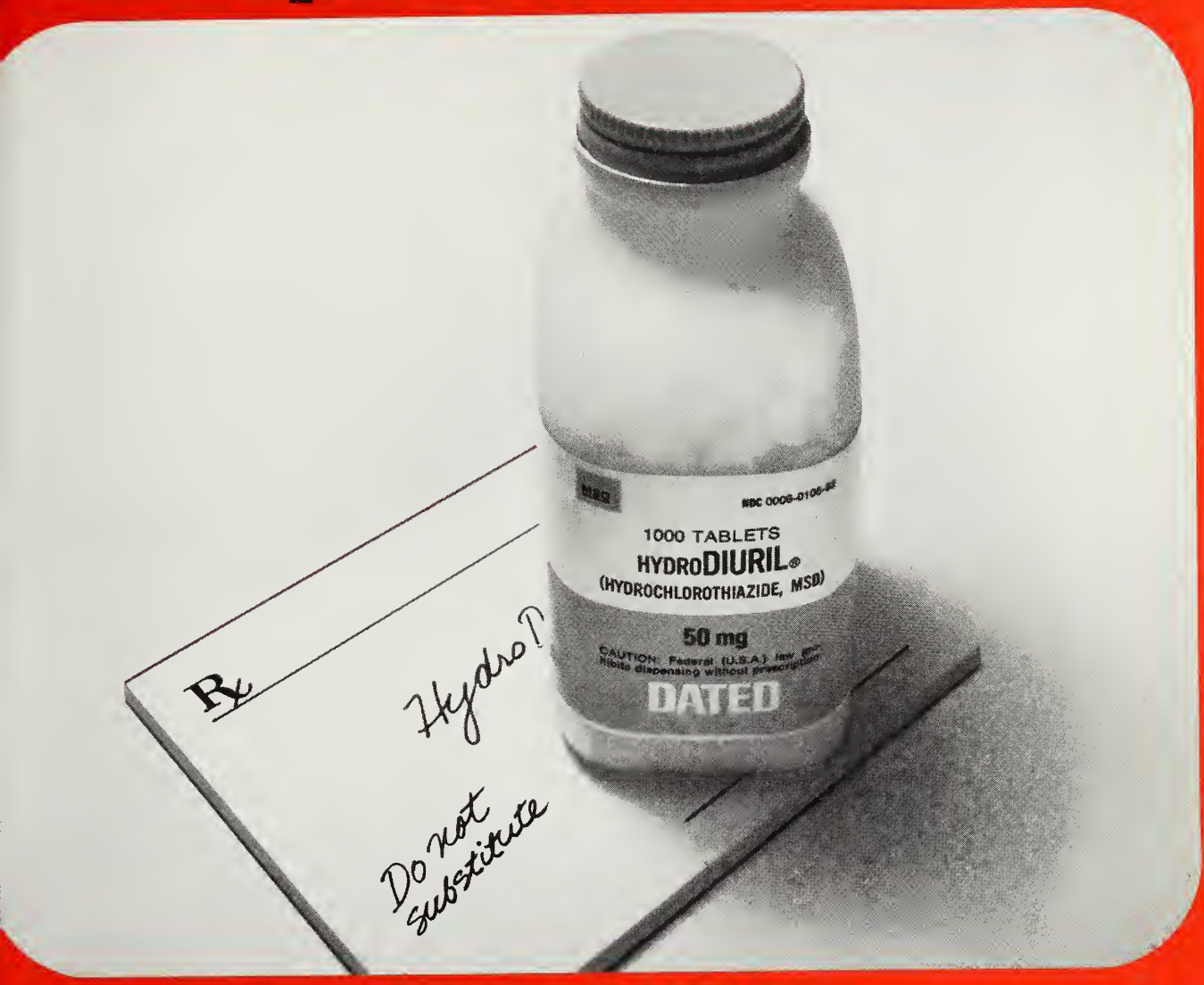
There is no substitute



yours...

Contraindications: Anuria, hypersensitivity to this or other sulfonamide-derived drugs.
Warnings: Use with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. Cumulative effects may develop in patients with impaired renal function. Use with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma. May add to or potentiate action of other antihypertensive drugs; potentiation occurs with ganglionic or peripheral adrenergic blocking drugs. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possibility of exacerbation or activation of systemic lupus erythematosus has been reported. Lithium generally should not be given with diuretics because they reduce its renal clearance and add a high risk of lithium toxicity. Read circulars for lithium preparations before use of such concomitant therapy. *Use in Pregnancy*: Thiazides cross placental barrier and appear in cord blood; in pregnancy, weigh anticipated benefit against possible hazards to fetus, including fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions that have occurred in adults. *Nursing Mothers*: Thiazides appear in breast milk; if use of drug is deemed essential, patient should stop nursing.
Precautions: Perform periodic determination of serum electrolytes to detect possible electrolyte imbalance. Observe all patients for clinical signs of fluid or electrolyte imbalance, namely, hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs, irrespective of cause, are dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting. Hypokalemia may develop, especially with brisk diuresis in severe cirrhosis, with concomitant corticosteroid or ACTH therapy, with inadequate oral electrolyte intake. Hypokalemia can sensitize or exaggerate response of heart to toxic effects of digitalis (e.g., increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content. Any chloride deficit is generally mild and usually does not require specific treatment except under extraordinary circumstances (as in liver disease or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt except in rare instances when the hyponatremia is life threatening. In actual salt depletion, appropriate replacement is the therapy of choice.
Hyperuricemia may occur or frank gout may be precipitated in certain patients. Insulin requirements in diabetic patients may be increased, decreased, or unchanged; latent diabetes mellitus may become manifest. Thiazides may increase responsiveness to tubocurarine. Antihypertensive effects of the drug may be enhanced in post-sympathectomy patients. May decrease arterial responsiveness to norepinephrine, this diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use. If progressive renal im-

for experience—



or ours.

airment becomes evident, consider withholding or discontinuing iuretic therapy. Thiazides may decrease serum PBI levels without igns of thyroid disturbance. Calcium excretion is decreased by hiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients n prolonged therapy; thiazides should be discontinued before testing or parathyroid function.

Adverse Reactions: *Gastrointestinal System*—Anorexia; gastric irtation; nausea; vomiting; cramping; diarrhea; constipation; jaundice ntrahepatic cholestatic jaundice); pancreatitis; sialadenitis.

Central Nervous System—Dizziness; vertigo; paresthesias; headache; anthopsia.

Hematologic—Leukopenia; agranulocytosis; thrombocytopenia; plastic anemia.

Cardiovascular—Orthostatic hypotension (may be aggravated by lcohol, barbiturates, or narcotics).

Hypersensitivity—Purpura; photosensitivity; rash; urticaria; necrotizing ngiitis (vasculitis) (cutaneous vasculitis); fever; respiratory distress ncluding pneumonitis; anaphylactic reactions.

Other—Hyperglycemia; glycosuria; hyperuricemia; muscle spasm; veakness; restlessness; transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

Note: When used with other antihypertensive drugs, careful observaions for changes in blood pressure must be made, especially during nitial therapy. Dosage of other antihypertensive agents must be reduced by at least 50 percent as soon as this drug is added to the regimen. As blood pressure falls under the potentiating effect of this agent, further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary.

How Supplied: Tablets containing 25 mg hydrochlorothiazide each in bottles of 100 and 1000 and single-unit packages of 100; Tablets containing 50 mg hydrochlorothiazide each in bottles of 100, 1000, and 5000 and single-unit packages of 100; Tablets containing 100 mg hydrochlorothiazide each in bottles of 100.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

J6HD04(528)

MSD
MERCK SHARP & DOHME

In hypertension

TABLETS: 25 mg, 50 mg, and 100 mg

HydroDIURIL®

(HYDROCHLOROTHIAZIDE|MSD)

EDITORIALS

Elton Wallace Lance, M.D. — 1898-1978

Doctor Elton W. Lance, 162nd President of the Medical Society of New Jersey (1954-1955) died at the Rahway Hospital in the early hours of Monday, February 20. His funeral services were held on the afternoon of Wednesday, February 22, in the Second Presbyterian Church of Rahway.

Doctor Lance was born in Cabot, Vermont. He attended the University of Vermont, where he received his doctorate in medicine in 1924. After an internship at the Mary Fletcher Hospital in Burlington, Vermont, he entered upon the practice of medicine in Rahway in 1925. There he continued to live and practice, specializing in general surgery since 1935.

In 1926 Doctor Lance became a member of the staff of Rahway Hospital, an affiliation which he retained until his death. He served as president of the staff, and for several years was chairman of its executive committee. He was a life-long member of the Union County Medical Society and president of that organization in 1946-1947.

Doctor Lance was elected a member of the Board of Trustees of the Medical Society of New Jersey in 1946 and served in that capacity until 1951, when he was elected 2nd vice-president of the Society. He was a Fellow of the American College of Surgeons and a member of the American Medical Association, the Society of Surgeons of New Jersey, and the Academy of Medicine of New Jersey. In 1968, the Academy of Medicine honored Doctor Lance by naming him New Jersey's "Physician of the Year," an award conferred annually upon the New Jersey physician recognized as a leader in the medical profession and in the State community.

In 1936 and 1937, Doctor Lance served on the Medical Society of New Jersey's fact-finding committee on voluntary health insurance, and in 1937 he became chairman of the Society's committee which later became the founding committee of the Medical Service Administration and of the Medical-Surgical Plan of New Jersey. Doctor Lance was the first president of both of those two pioneer medical care organizations. He subsequently served as a Plan trustee, and in 1971 was named "Trustee Emeritus" by the Plan's Board of Trustees.

Doctor Lance is survived by his wife, Ruth, and by two sons: Edward Merriman, M.D., of Monmouth County, and Kendrick Paige, M.D., of Passaic County.

The concepts basic to his life as a practicing physician and medical leader are revealed in the following excerpt from Doctor Lance's inaugural address as President of the Medical Society of New Jersey:

"In the interest of the public good we must be as alert to discover, and as energetic to eliminate, ills of the spirit as ills of the flesh. We must preach, for the preservation of the public good, the importance of the development of citizens whose character is such — in the best of the American tradition — that they live proudly by their own strength and survive by their own vigor . . . In the interest of the public good — and of the preservation of a free America as a symbol and a hope to an oppressed world — we must preach the preeminent importance of the qualities of personal integrity, personal responsibility, and mutual cooperation . . . and we must practice what we preach!

"The advancement of the profession will follow upon the dutiful and dependable service rendered by conscientious and competent practitioners who individually bring to their ministrations the fervor of science and the compassion of human brotherhood."

To those concepts Elton Lance was undeviatingly faithful his whole life through.

Richard I. Nevin

Protection of the Consumer from Radiation

The FDA's Bureau of Radiological Health (B.R.H.) has issued a pamphlet* describing its *raison d'etre,* its mission, its activities, and its future plans.

It is concerned with the radiation exposure of the population from a variety of sources including x-ray equipment, ultrasound, ultraviolet light, medical diathermy, laser radiation, television sets, and microwave ovens. In this regard the Bureau is doing admirable work in the regulation and elimination of the radiation hazards of such instruments.

However, I must take issue with the statements that "some unnecessary exposure is due to unnecessary radiologic examinations. Part of the problem is lack of scientific criteria for physicians on when these examinations are indicated. This calls for the Agency's attention in the future." Such an attitude causes great concern about the heavy hand of the federal government on the practice of medicine. It is shocking that a government agency feels qualified to decide when x-rays are indicated. Individual physicians must be the pri-

**The Bureau of Radiological Health: A Look at FDA's Program to Protect the American Consumer from Radiation.* U.S. Department of Health, Education and Welfare. Washington, D.C., U.S. Government Printing Office, 1977.

mary means to curtail unnecessary examinations. This now is being done through review processes and audits at the local level with encouragement from the national medical societies. Hospital review committees are working hard and successfully to improve the quality of medical practice, including containment of unnecessary x-rays, laboratory tests, and surgery.

In discussing the Bureau's concern about the biological consequences of ultrasound, the pamphlet states: "Harmful effects in humans as yet have not been demonstrated from the levels of ultrasound used in medical diagnostic tests. But available data are sufficient to raise at least some concern about the safety of ultrasound diagnosis, although present information is insufficient to define conclusively the degree of risk, if any."

Such a statement makes this commentator feel as if he were riding a roller coaster—safe, not safe, safe. A television news reporter can create a panic quoting this type of bureaucratic statement. In anticipation of such a television news report, the B.R.H. should provide such "available data" to each of us so we can pass it on to our professional liability insurance company.

The alleged missions of the Bureau of Radiological Health appear laudable, but the nature of the bureaucratic beast is such that the processes by which they hope to reach those goals are both confusing and threatening.

Sidney Ketyer, M.D.

Editorial Policy

Critical observations in two letters in a recent issue of *The Journal* (*J Med Soc NJ* 75:269, 1978) deserve comment on three points:

1. The editor "speaks for the Society."
2. It is "inappropriate" for the editor to "take sides" on controversial issues.
3. The publication of disputatious articles (Duff and Campbell, *J Med Soc NJ* 75:43-47, 1978 and Koop, *J Med Soc NJ* 75:62-67, 1978) in some way may be insulting to the reader's "intelligence," "professional judgments," and "moral beliefs."

It is vital that all members and readers realize that the editor does not speak *for* the Society, but does speak *to* the readers of this *Journal*. It is neither the function of the editor to make policy nor to parrot the words and ideas of the officers and Board of Trustees. Those distinguished physicians speak loudly and clearly with their own voices, inside and outside of this *Journal*. It is true that pointed editorials, whether written by a member of the editorial staff or a guest, can influence the thinking of some readers. Such an influence, however, may be either positive or negative, depending on the issue and the individual reader's ideas.

It not only is appropriate but essential for an editorial writer "to take sides," especially on issues which polarize a thinking group. To do otherwise, i.e., blandly to describe the sentiments of each side, without presenting his own opinion, is to do the work of a reporter, not an editor. It is to their great credit that no officer nor member of the Board of Trustees ever has attempted to dictate the content or nature of individual editorials or of the editorial policy of this *Journal*. It should remain that way in a free society such as ours.

Our editorial policy is stated clearly in the revised "Information for Readers and Contributors," in this (p. 293) and the March (p. 214) issues. Although controversy is not stimulated or sought after for its own sake, there is no reason to shun the publication of differences of opinion. In editorials, commentaries, and letters to *The Journal* only the boundaries of good taste and legal considerations limit the author.

As to the publication of material which may displease some readers—or even the editor—none of us would tolerate a system of censorship which would eliminate or modify the written words of others so as to preclude that premise. It is regular *Journal* policy to give publication priority to annual meeting presentations at the scientific sessions, the Governor's Conference, the Prayer Breakfast, and other meetings. Such a vast array of speakers well may include a controversial figure whose ideas may annoy some. If the cause of freedom in journalism entails such a risk, so be it!

Differences of opinion lead to progress in research, science, medicine, government, and in every field, including social and inter-personal relationships. They led to the American revolution which founded our country, to the abolition of slavery which added to its greatness, to the civil rights movement, and to so much more.

In this regard, it would be useful to reread a pertinent and ancient fable: "A certain king of Savatthi assembled the blind men in his kingdom and let them feel an elephant. He who felt the head said, 'Your majesty, an elephant is like a waterpot'; he who felt of its ears said, 'An elephant is like a winnowing basket'; he who felt of the tusks said, 'An elephant is like a plowshare'; he who felt of its belly said, 'An elephant is like a granary'; he who felt of its legs said, 'An elephant is like pillars'; he who felt of the back said, 'An elephant is like a mortar'; he who felt of its tail said, 'An elephant is like a rope.' And each was right. And each was wrong."

When it comes to ideas and interpretations, each of us may be right and each of us may be wrong. Whether right or wrong, both points of view should be considered.

A.K.

Coronary Artery Disease in Young Adults: A Surgical Group's Experience

RAMON S. CUASAY, M.D., DRYDEN P. MORSE, M.D., JAVIER FERNANDEZ, M.D., PASCHAL SPAGNA, M.D., GERALD M. LEMOLE, M.D., Browns Mills*

Of 577 patients who underwent coronary artery surgery at the Deborah Heart and Lung Center, 101 (17 percent) were younger than 46 years. Factors contributing to coronary artery disease are discussed. All patients showed disabling angina; 8.8 percent had congestive heart failure; 10.8 percent had preinfarction angina. Factors affecting early and late mortality are presented. Good results, as shown by relief of angina and by treadmill testing, are obtainable with operative treatment of coronary artery disease in young adults.

Young adults below the age of 46 are not immune from severe coronary artery disease.[1-7] We report herein our experience in the treatment of coronary artery disease in patients 45 years old or younger to add to the growing data base in that age group. Analysis of the postoperative and time-related morbidity, mortality, and functional state of patients form the basis of this report.

CLINICAL MATERIAL

Between January, 1970 and July, 1975, 577 patients with occlusive coronary disease underwent surgical treatment at the Deborah Heart and Lung Center. Of these, 101 were 45 years old and younger (17 percent) and form the material for this report. There were four male patients 30 years old or younger. There were six patients in the age group 31 to 35, all of whom were males save one; 34 patients in the age group 36 to 40 (30 males and four females); 57 patients in the age group between 41 to 45 (51 males and six females). There were a total of 90 males and 11 females. The youngest male patient was 24. The youngest female patient was 32.

All the patients had disabling angina as the reason for operation. Nitroglycerin in all patients and increasing doses of propranolol hydrochloride in 25 patients no longer relieved angina. Preinfarction angina, defined as a changing pattern of pre-existing angina (longer and/or more frequent), chest pain at complete bed rest, transient electrocardiographic changes during the angina, increasing pain lasting longer than 30 minutes and unresponsive to rest and sublingual trinitroglycerin, was seen in 12 patients. Nine patients also had congestive heart failure. A history of myocardial infarction was noted in 77 patients (46 had one and 31 had multiple infarctions); every one of these had electrocardiographic evidence of old myocardial infarction. Eight patients were operated on between one and eight months after their last myocardial infarction. The rest were operated on between one to four years after their last myocardial infarction. There was one patient transferred from another hospital who had had intractable angina and was in cardiogenic shock at the time of operation from acute massive anterior wall infarction. Thirteen patients had diabetes mellitus (nine males and four females); 25 were obese (21 males and four females); and 15 patients were under treatment for hypertension (14 males and one female). *All but five of the patients were heavy smokers.* Sixty-two patients had a positive family history of coronary artery disease (55 males and seven females). None of the women had had premature menopause or had taken oral contraceptives.

Selective coronary arteriography and left ventriculography were performed in all patients. Over 70 percent reduction of luminal diameter was considered coronary artery disease.

*This study is from the Department of Surgery, Deborah Heart and Lung Center, Browns Mills, New Jersey. Correspondence may be addressed to Ramon S. Cuasay, M.D., Deborah Heart and Lung Center, Trenton Road, Browns Mills, N.J. 08015.

Single vessel disease was seen in 23 patients; double vessel disease in 49, triple vessel disease in 25 and quadruple vessel disease in four. No left main lesion was seen in this series. A left ventriculogram demonstrated ventricular aneurysm, defined as a large akinetic or paradoxically pulsating area, in 20 patients. Ventricular function, as measured by single plane cineangiographic volume analysis, was judged poor in 31 patients with ejection fraction calculated below 0.35. Associated lesions included aortic regurgitation in two patients and mitral insufficiency in two.

All patients underwent coronary artery surgery with insertion of reversed saphenous vein grafts during total cardiopulmonary bypass. A single saphenous vein graft was placed in 31 patients, a double in 49, a triple in 16, and quadruple grafts in two. Resection of ventricular aneurysm was done in 20 patients. Twenty-four vessels in 14 patients were considered not suitable for revascularization because of size and poor runoff. It was necessary to perform endarterectomy in six patients for revascularization to be completed. Endarterectomy of the right coronary artery was done in five patients, the left anterior descending in two, and the obtuse marginal branch of the left circumflex artery in two others. A concomitant resuspension of the aortic valve to relieve aortic insufficiency was performed in one patient who received triple vein grafts. One patient had an aortic valve replacement and a single vein graft. Of the two patients with mitral insufficiency, only one needed mitral valve replacement and this patient also received three vein grafts.

POSTOPERATIVE RESULTS

Surgical Mortality—Of the 101 patients, six died at operation or in the early postoperative period (5.94 percent mortality). Two deaths were attributed to myocardial (pump) failure, and occurred at the cessation of bypass. Two patients died within the first 24 hours after surgery from irreversible ventricular fibrillation. Two other patients died suddenly on the seventh postoperative day from massive pulmonary embolism despite prophylactic precautions including anticoagulation with heparin started 48 hours after surgery, antiembolism stockings, and early ambulation. These deaths are illustrated in Table I.

Analysis of the six surgical deaths showed the following factors to correlate with surgical mortality: endarterectomy (33 percent vs. four percent for patients without endarterectomy), ejection fraction less than 0.35 (45 percent vs. one percent for patients with ejection fraction over 0.35), preinfarction angina (18 percent vs. four percent for patients without preinfarction angina), incomplete revascularization (14 percent vs. 4.5 percent with complete revascularization), previous myocardial infarction(s) (6.4 percent vs. four percent for patients without previous myocardial infarction), and positive family history of coronary artery disease (6.4 percent vs. five percent for patients with negative history). The duration of cardiopulmonary bypass or anoxic cardiac arrest did not affect mortality and neither did resection of ventricular aneurysm and number of vessels bypassed. No patient who underwent concomitant valvular surgery, regardless of other factors, died; since there were only three in the series this may not be statistically significant.

On the basis of this analysis, the higher mortality seen in those endarterectomized and with incomplete revascularization more likely suggests that the severity and diffuseness of the underlying coronary artery disease is a major determinant of survival.

Operative Complications—Among 95 survivors, immediate postoperative complications included the appearance of new myocardial infarction (new Q wave) in six patients, mild postpericardiotomy syndrome (fever, leukocytosis, and pleural effusion) in seven patients, and cerebral embolism in one. Postoperative bleeding requiring a second thoracotomy for control of bleeding occurred in three patients. Thrombosis of the femoral artery requiring thrombectomy immediately postoperatively occurred in one patient. There was one sternal dehiscence requiring secondary closure, and one wound infection.

Follow-Up—All 95 patients who survived their operation are included in the follow-up. Each patient is seen in the out-patient clinic one month after operation and yearly thereafter or sooner if required. Their most recent status was obtained from their out-patient charts, questionnaires and telephone interviews. The shortest follow-up is 16 months and the longest is seven years (mean follow-up period is 37 months). One patient who had had two previous infarctions (one and two years preoperatively) and who had poor ventricular function and congestive heart failure at the time of operation, became completely free of angina but died from congestive heart failure 12 months postoperatively. Another patient with similarly poor ventricular function was free of angina for 42 months but continued to have decompensation and died at the end of that time from congestive heart failure. The death of two patients occurring five months postoperatively was attributed to myocardial infarction caused by progression of coronary occlusive disease in vessels other than those operated, but previously judged not significant by angiography. The late deaths are summarized in Table II.

Factors affecting late mortality were: 1) the presence preoperatively of heart failure or preinfarction angina, 2) poor left ventricular function as estimated at ventriculography, 3) a history of myocardial infarction(s), and 4) resection of ventricular aneurysm. There was no correlation of late deaths with the number of vessels bypassed. There were no late deaths among those who had endarterectomies who survived the immediate postoperative period nor among those who underwent concomitant valvular surgery.

Seventy patients returned to their homes and/or jobs with ability to do the same or more activities than preoperatively; these were classified as excellent results. Ten of these patients still suffer occasional chest discomfort, but their complaints do not follow the typical angina pattern. Twenty-three pa-

Table I
*Causes of Surgical Mortality**

Causes	Number	Days Postaperative
Myocardial (pump) Failure	2	0
Ventricular Fibrillation	2	0
Pulmonary Embolism	2	7

*All patients were autopsied

Table II
*Causes of Late Deaths**

Causes	Number	Months Postaperative
Congestive Heart Failure	2	12 and 42
Myocardial Infarction	2	5

*All patients were autopsied

tients still complain of angina but are easily relieved with trinitroglycerin. The condition of one patient remained unchanged. One claimed to have become worse.

Of the 14 patients incompletely revascularized because of unsuitable anatomy, eight had excellent results, four were improved and two died early postoperatively.

Of the six patients who had endarterectomy of vessels before revascularization, two had excellent results, one was better, one remained unchanged and two died early postoperatively.

TREADMILL TESTING

All patients who were not disabled by arrhythmias, heart failure, recent myocardial infarction, transitory S-T segment changes consistent with ischemia, or any adverse physical condition, had a seven-percent grade treadmill test preoperatively. Our treadmill test starts at one mph for three minutes then two mph for three minutes and so on, at 7 percent grade. There are several end points: the appearance of angina or ischemic changes (two to three mm depression of the S-T segment) or arrhythmia or significant shortness of breath or fatigue or attainment of 85 percent of predicted maximum heart rate for the patient's age.

There were 65 patients who completed the test one or more times at varying periods before surgery while on medical treatment and/or before they eventually were accepted for surgery. Of these, 29 had exercise-induced angina, 14 had typical electrocardiographic ischemic changes (two mm or more depression or elevation of S-T segments), 13 had both angina and ischemic changes on testing. There were nine others who had neither angina nor ischemic changes on testing. Their angina did not appear with the treadmill exercise.

The 29 patients who had exercise-induced angina during the preoperative test had the following results: three died at surgery and two more died later on in the follow-up period. The latter two patients had had an incomplete postoperative treadmill test because of poor exercise tolerance at some interval of time before their death. Thirteen completed the treadmill test one or more times postoperatively without angina. Nine patients who were completely asymptomatic did not have the test. One patient had exercise-induced ischemic changes without angina five months after operation, but a year later had exercise-induced angina without ischemic changes. One other patient had an incomplete test because of trigeminal rhythm.

Of the 14 patients who had exercise-induced electrocardiographic ischemic changes on preoperative testing, five completed the treadmill test one or more times postoperatively without ischemic changes and nine others did not have the test done.

Of the 13 patients who had both angina and ischemic changes on treadmill testing, six completed the test after surgery with neither angina nor ischemic changes and seven others did not have the test done.

Of the nine patients who had neither angina or ischemic changes on testing, two completed the test postoperatively with greatly improved exercise tolerance and seven others did not have the test done.

There were also seven patients who completed the treadmill test postoperatively who had no preoperative test because of reasons previously cited (arrhythmias, congestive heart failure, and so on). Of these, three had no exercise-induced angina or ischemic changes on the first postoperative test three to six months after operation; three had exercise-induced angina on their first postoperative test but eight to twelve months later had neither angina nor ischemic changes; one patient had exercised-induced ischemic changes on his first postoperative test but 12 months later had neither angina nor ischemic changes.

Table III
Coronary Artery Surgery
Assessment by Treadmill Test

	Number	Percentoge
Patients with Complete Preop Test	65	
Potients with Poin ond/or ECG Ischemic Chonges on Test	56	85
Patients with Positive Preop Test ond Complete Postop Test	25	
Potients without Poin ond/or ECG Ischemic Chonges on Test	24	96

This analysis emphasizes the value of treadmill testing as objective evidence to confirm the subjective improvement. Thus 24 out of 25 patients who completed both preoperative and postoperative tests had clinical and test-measured improvements. One patient who was clinically improved did develop ischemic changes on testing and pain on a separate testing. Four patients who had postoperative treadmill exercise test during the first three to six months after operation had a negative test eight to 12 months later and not one developed angina. (Table III)

POSTOPERATIVE CORONARY ANGIOGRAPHY

The size and widespread geographic origin of our patient population have mitigated against angiographic restudy of all postoperative patients on a routine basis unless there was reason to suspect occlusion of the vein grafts.

In the one patient in this series whose angina remained unrelieved postoperatively, restudy by coronary angiography showed occlusion of two of three vein grafts implanted, but the patient refused any further operation. One patient who received vein grafts to the left anterior descending and right coronary arteries developed severe congestive heart failure six months postoperatively. Coronary angiography showed occlusion of the vein graft to the left anterior descending artery with consequent development of a large anteroapical ventricular aneurysm (see Figure 1). He later had resection of the ventricular aneurysm with an excellent result.

One patient, who had a saphenous vein graft to the endarterectomized marginal branch of the left circumflex vessel and resection of a ventricular aneurysm, continued to have occasional angina after surgery. Repeat coronary study showed a patent vein graft (see Figures 2 and 3) and no other lesions.

There were three other patients who, though improved, still had occasional angina and were therefore restudied. All four vein grafts of these patients (two to the left anterior descending and two to the right coronary artery) were patent. One right coronary artery vein graft was patent but three kinks in the slightly redundant graft were seen just before the area of anastomosis (see Figure 4). The same patient showed a severe occlusion of the proximal left anterior descending artery, a lesion that was not there five years before at the first operation (see Figure 5). The patient sub-



Figure 1 – Left ventriculography on a patient shows a large antero-apical ventricular aneurysm because of a totally occluded left anterior descending coronary-artery vein graft.



Figure 2 – An arteriogram in the right anterior oblique view demonstrates an open-vein graft to the marginal branch of the left circumflex vessel.

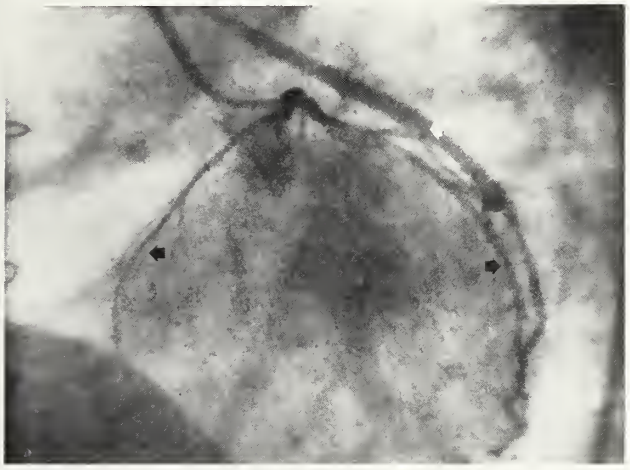


Figure 3 – An arteriogram in the left anterior oblique view of the same patient shows the patent vein graft (white arrow) and the avascular area between the left anterior descending and circumflex vessels (black arrows) represents the area of the resected ventricular aneurysm.

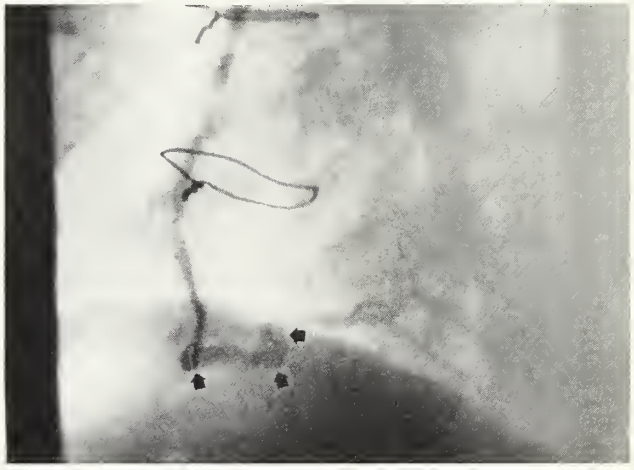


Figure 4 – An arteriogram in the left anterior oblique view shows some kinks in the slightly redundant but patent right coronary-artery vein graft.

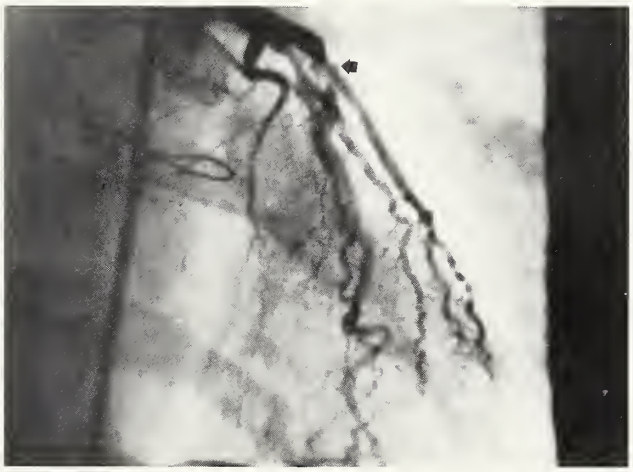


Figure 5 – An arteriogram in the right anterior oblique view reveals a significant occlusion of the left arterior descending coronary artery (arrow), a lesion which was not present five years previously.

sequently received a vein graft to the left anterior descending artery and plication of the mitral valve to correct a mitral regurgitation from unusually elongated chordae tendineae.

DISCUSSION

Sixty-four years ago, Herrick first described the clinical picture of myocardial infarction in America and at that time referred to two cases occurring in men under 40 years of age.[8] However, not until the period following the second world war was coronary artery occlusive disease considered of major proportion among patients less than 40 to 46 years of age.[2-7,9] A pivotal study was that of Enos, Holmes and Beyer in 1950 who found, in 300 autopsies of young men killed in battle during the Korean War, that 77 percent had gross evidence of coronary atherosclerosis.[10] It is now generally accepted that some degree of coronary arteriosclerosis exists in every male past puberty, and perhaps in some cases the onset coincides with extra-uterine life.[11]

Risk factors among males with myocardial infarction prior to age 50 have been identified by Hanashiro and associates.[12] These contributing factors include abnormal intravenous glucose tolerance test, elevation of serum cholesterol and triglycerides, history of cigarette smoking, hypertension, obesity and positive family history of coronary artery disease. These findings are consistent with the observation of Hatch and others,[13] Walker and Gregoratos,[14] Gertler and White,[15] Hughes *et al.*,[1] and ours in this series.

Our present study was limited to patients under 46 years in the belief, also held by Spain and others, that hypertension, diabetes, and obesity do not play as important a role in this age group as somewhat later in life.[5]

A striking finding in our series is that 77 of 101 patients had previous myocardial infarctions; 40 percent had multiple infarctions. There were only 36 patients who had had angina for less than a year. The angina in the 67 remaining patients had been present for one to five years. This may reflect the prevalent lack of concern in the treatment of coronary artery disease in the younger age group. This feeling contrasts with our findings in this series for there were 78 of 101 patients who had two or more vessels with significant occlusive disease.

The study of Hughes *et al.*, which compared patients less than 40 years of age with those of greater age undergoing coronary artery bypass surgery, showed a lesser extent of coronary atherosclerosis among the younger patients (mean coronary artery score of 7.8 for younger patients vs. 9.2 for the older patients).[1] They also found there was need for a lesser number of coronary bypass grafts in the younger patients. Also there was less frequent performance of endarterectomy and a lesser incidence of valvular disease in the younger age group with a consequent decreased incidence of associated surgical conditions for that age group. Finally, there was less surgical mortality for the younger age group (5.5 percent vs 8.5 percent in the older age group).

Previous studies have shown that patency rates for vein grafts are similar for the right coronary, left anterior descending and marginal branch of the left circumflex vessels.[16,17] In the age group of patients below 40 years however, a marked tendency toward late occlusion of grafts to the right coronary artery was shown by Hughes *et al.*[1] No such statement could be made in our series as a restudy of our patients on a routine basis was not a policy.

BIBLIOGRAPHY

1. Hughes DA, Youngblood LA, Norman JC, *et al:* Coronary artery surgery in the young adult. *Coronary Artery Medicine and Surgery: Concepts and Controversies.* Edited by JC Norman. New York, Appleton, Century Crofts, 1975

2. Yater WM, Traum AH, Brown WG, *et al:* Coronary artery disease in men 18-39 years of age, Part I. *Am Heart J* 36:334-372, 1948

3. Yater WM, Traum AH, Brown WG, *et al:* Coronary artery disease in men 18-39 years of age, Part II. *Am Heart J* 36:481-526, 1948

4. Yater WM, Traum AH, Brown WG, *et al:* Coronary artery disease in men 18-39 years of age, Part III. *Am Heart J* 36:683-722, 1948

5. Spain DM, Bradess VA, Huss G: Atherosclerosis in males less than 46 years of age. *Ann Intern Med* 38:254-277, 1953

6. Adlersberg D, Zak FG: Atherosclerosis of early age: Clinical and pathological study. *Circulation* 2:473, 1950

7. Gertler MD, Garn SM, White PD: Young candidates for coronary heart disease. *JAMA* 147:621-625, 1951

8. Herrick HB: Clinical features of sudden obstruction of the coronary arteries. *JAMA* 59:2015-2020, 1912

9. White PD: Coronary heart disease in mid-century with note concerning its military importance. *US Armed Services* 2:357-364, 1951

10. Enos WF, Holmes RH, Beyer J: Coronary disease among United States soldiers killed in action in Korea. *JAMA* 152:1090-1093, 1953

11. Friedman M: *Pathogenesis of Coronary Artery Disease.* New York, McGraw-Hill, 1969

12. Hanashiro PK, Sanmarco ME, Selvester RH, *et al:* Risk factors in males with premature atherosclerosis. *Coronary Artery Medicine and Surgery: Concepts and Controversies.* Edited by JC Norman. New York, Appleton, Century Crofts, 1975

13. Hatch FT, Reissel PK, Poon-King TMW, *et al:* A study of coronary heart disease in young men. Characteristics and metabolic studies of the patients and comparison with age-matched healthy men. *Circulation* 33:679-703, 1966

14. Walker W, Gregoratos G: Myocardial infarction in young men. *Am Cardiol* 19:339-343, 1967

15. Gertler MD, White PD: *Coronary heart disease in young adult – Monograph.* Cambridge, Massachusetts, Harvard University Press, 1954

16. Effler DB, Favaloro RG, Groves LK, *et al:* The simple approach to direct coronary artery surgery – Cleveland Clinic Experience. *J Thorac Cardiovasc Surg* 62:503-510, 1971

17. Walker JA, Friedberg HD, Flemma RJ: Determinants of angiographic patency of aortocoronary vein bypass grafts. *Circulation* 45 (Suppl I), 86-90, 1972


COLACE prevents hard, dry stools common to constipation . . . and does it without laxative stimulation. COLACE assists peristalsis by simply letting intestinal water permeate stools.
COLACE helps to prevent painful straining at stool—particularly important in patients with delicate anorectal disorders. Safe and non-habit forming . . . COLACE, the simple water way to ease constipation from infancy to old age.
Simple drops of water help make COLACE® the most widely used stool softener.
COLACE®
dioctyl sodium sulfosuccinate
Mead Johnson
PHARMACEUTICAL DIVISION

This asthmatic isn't worried about his



next breath...

he's active
he's effectively
maintained on

QUIBRON®

Each capsule or tablespoonful (15 ml) elixir contains theophylline (anhydrous) 150 mg and glyceryl guaiacolate (guaifenesin) 90 mg. Elixir: alcohol 15%

high theophylline for effective around-the-clock therapy

Quibron may give the asthmatic up to eight hours of bronchodilation with each dose and provides the high dosages of theophylline which are now believed necessary to keep patients free of acute attacks and chronic wheezing.

100% free theophylline

Quibron helps achieve high serum theophylline levels with minimal dosage volume...delivers 100% free theophylline in comparison to many other compounds which contain from 47% to 91% effective theophylline.

individualized theophylline dosage schedule

Today's more efficient usage of theophylline includes individualizing dosage and monitoring serum theophylline levels. The usual recommended dosages of Quibron are: Adults—1 to 2 capsules or tablespoonfuls every 6 to 8 hours; dosage may be cautiously adjusted upward when necessary to a maximum of 2000 mg theophylline per 24 hours. Children under 12—4 to 6 mg theophylline per kg/body weight every 6 to 8 hours; dosage may be cautiously adjusted up to 9 or 10 mg/kg every 6 hours.

Now, for the asthmatic who requires high-dose theophylline therapy for therapeutic serum concentrations

Mead Johnson Pharmaceutical Division announces

QUIBRON®-300

Each capsule contains 300 mg theophylline (anhydrous) and 180 mg glyceryl guaiacolate (guaifenesin)

For Brief Summary, please see the last page of this advertisement.

QUIBRON®-300

Each capsule contains 300 mg theophylline (anhydrous) and 180 mg glyceryl guaiacolate (guaifenesin)

The new high-dose theophylline capsule... for dependable theophylline therapy when products of lower dosage do not adequately control asthma symptoms.

Specially formulated

...for optimal efficacy

Quibron-300 is appropriate therapy for asthma patients whose symptoms are not adequately controlled on lower doses of theophylline, particularly for patients whose theophylline dosage has been adjusted upward to achieve therapeutic serum levels. In one study,[1] an average peak increase in FEV_1 of 35% was demonstrated after a single dose equivalent to one Quibron-300 capsule, and significant improvement in this pulmonary function lasted for nearly eight hours after administration.

...for optimal predictability

One Quibron-300 capsule q6-8h yields therapeutic serum levels (10-20 mcg/ml) in many adults. With a single dose, more than 75% of patients achieved serum levels potentially providing clinical benefit (5-15 mcg/ml). Half-life of theophylline varies widely from patient to patient, making monitoring of theophylline therapy important. Patient response may be monitored clinically if blood levels are not available as long as dosage does not exceed 1200 mg in 24 hours for adults.

...for optimal dosage convenience

The simple, convenient dosage of new Quibron-300—one capsule every six to eight hours—makes it easy for patients to comply with high-dose regimens often required to achieve therapeutic serum levels. Quibron-300 capsules may provide maximum therapeutic value with maximum convenience. In fact, the switch from a low-dose to a high-dose regimen may be accomplished by merely switching capsules, by stepping up to Quibron-300 capsules.

...for minimal theophylline side effects

Adverse reactions to theophylline are related to serum levels and are usually not a problem at concentrations below 20 mcg/ml. Of 45 patients studied[1] after a single dose, only seven reported adverse reactions. The most common reaction was a feeling of lightheadedness by three of these seven patients.

Reference 1 Data on file. Mead Johnson Pharmaceutical Division.

Indications: For the symptomatic treatment of bronchospastic conditions such as bronchial asthma, asthmatic bronchitis, chronic bronchitis, and pulmonary emphysema.
Dosage: Quibron—Adults: 1-2 capsules or 1-2 tablespoonfuls elixir every 6-8 hours. Children under 12: 4-6 mg theophylline/kg body weight every 6-8 hours.
Quibron-300— Adults: 1 capsule every 6-8 hours.
Theophylline dosage may be cautiously increased to 2000 mg/24 hour in adults and 9 or 10 mg/kg every 6 hours in children. Monitoring of serum theophylline levels at higher dosages is recommended.
Precautions: Do not administer more frequently than every 6 hours, or within 12 hours after rectal dose of any preparation containing theophylline or aminophylline. Do not give other xanthine derivatives concurrently. Use in case of pregnancy only when clearly needed.
Adverse Reactions: Theophylline may exert some stimulating effect on the central nervous system. Its administration may cause local irritation of the gastric mucosa, with possible gastric discomfort, nausea, and vomiting. The frequency of adverse reactions is related to the serum theophylline level and is not usually a problem at serum theophylline levels below 20 μg/ml.
How Supplied: Quibron Elixir: Bottles of 1 pint and 1 gallon. Quibron Capsules: Bottles of 100 and 1000 and unit-dose packs of 100. Quibron-300 Capsules: Bottles of 100.

Mead Johnson PHARMACEUTICAL DIVISION

© 1978 Mead Johnson & Company • Evansville, Indiana 47721 U S A.

MJL 7-4280

Primary and Delayed Primary Repairs of Flexor Tendons in "No-Man's Land": 18 Consecutive Cases

JAMES B. MASSENGILL, M.D., Convent Station*

Eighteen patients, between eight and 53 years of age, underwent primary repair of flexor tendon in "no-man's land," the region of the joints of the fingers. The results were graded as excellent, good, fair, or failure. The complications are recorded and discussed in detail.

The restoration of digital function following interruption of flexor tendons in the region of the joints of the fingers has been a challenge to surgeons throughout the 20th century. The term "no-man's land" was coined by Sterling Bunnell to indicate that primary repair in this region was fraught with the hazards of infection and adhesions. He preached against this because he found many such hands crippled from the complications of ill-advised repairs.

However, in the 1960's the technique proposed by Harold E. Kleinert became accepted and favorable results were published. This technique was employed by the author in primary repairs in Zone 2 on eighteen consecutive patients between 1974 and 1977. They are listed as they appeared with no process of selectivity.

Age Group and Sex Distribution—Eleven of the patients were male, and seven female. The youngest was aged eight and the oldest 53. The mean age of the group was 19 years, half being below the age of 19 and half being above. (Figure 1)

Tendons Involved—All lacerations took place in "no-man's land," which comprises the area between the distal flexion crease of the palm to a point 0.5 cm. distal to the proximal interphalangeal joint flexion creases. (Figure 2) Thirteen patients had both flexor tendons severed and four of the patients had only the profundus tendon severed, while one patient severed only the sublimus tendon. Where both were lacerated, both were repaired, with one exception.

Digital Involvement—All four fingers were involved, the little predominating in 39 percent of the cases, and the index being next most common in 28 percent of the cases. (Table 1) Ten had digital nerve injuries, all of which were repaired.

TECHNIQUE

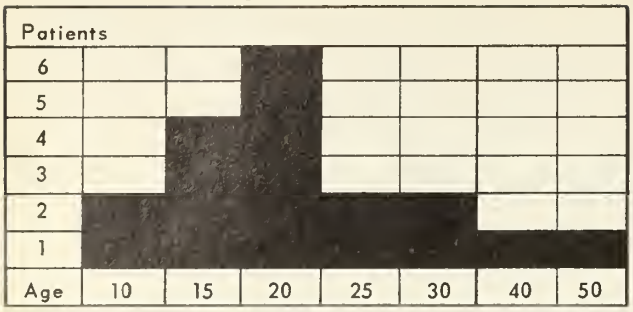
When the injuries were operated upon within 24 hours, they were considered primary repairs and no preoperative or postoperative antibiotics were given. If the wounds were grossly contaminated or older than 24 hours, then both preoperative and postoperative antibiotic treatment was administered intravenously. Only one of the cases was operated on more than 24 hours after injury and that patient received a five-day prophylactic treatment of cephalosporin.

In the first two cases a midaxial incision was used; however, this so limited exposure that in the subsequent sixteen cases a volar zig-zag approach was employed. Throughout the three years, an effort was made to reduce the amount of dissection. Where proximal tendon ends had retracted beyond the immediate operative field, secondary incisions were made either in the palm or wrist and the proximal tendon ends brought into the initial injury site with the aid of a variety of tendon passers. (Figures 3, 4, 5)

*Dr. Massengill, an orthopedic surgeon, specializing in hand surgery, is a member of the staffs of Morristown Memorial Hospital and the Morristown Community Medical Center. He may be addressed at 1 Shepard Place. Convent Station, New Jersey 07961.

Figure 1

Age Distribution



Youngest = 8 Oldest = 53 Mean Age = 19

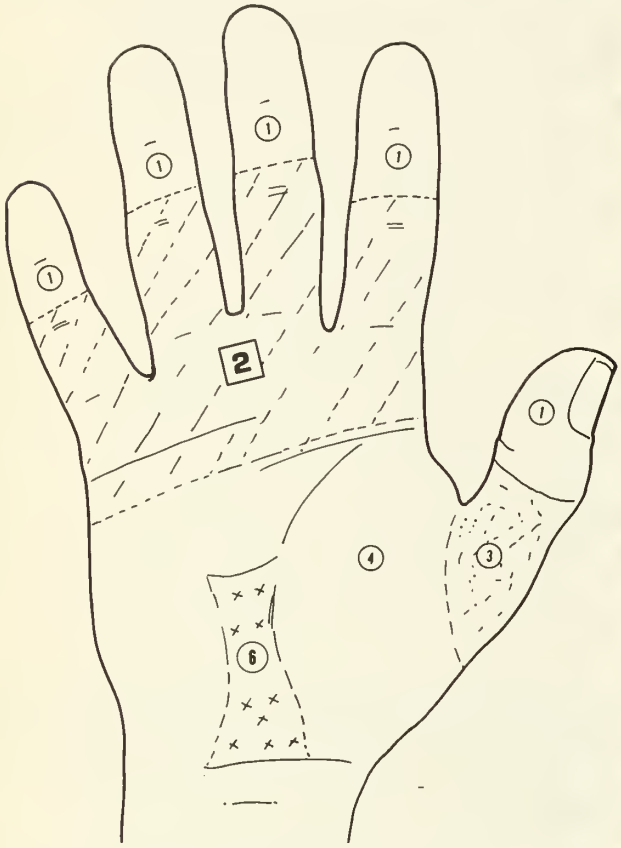


Figure 2



Figure 3—A 42-year-old female with a paring knife laceration at the proximal interphalangeal flexion crease of the little finger profundus tendon.



Figure 4—Flexion at eight weeks postoperative to 1.4 cm. from flexion crease. Final result 3½ months postoperative was flexion to within 0.5 cm. of the flexion crease and rated excellent.



Figure 5—Extension at eight weeks postoperative.

In the five initial cases 4-0 stainless steel wire was used; in the succeeding thirteen, we employed a combination of 4-0 monofilament nylon and 6-0 monofilament nylon. The main suture was a single crisscross "Bunnell type" suture. In the last two cases the main suture was a single "Kessler type" suture. The edges of the tendon were reinforced with circumferential 6-0 nylon.

Postoperatively motion was begun as soon as the patient was alert and motor control had been regained. This ranged between 24 and 48 hours after surgery. Splinting consisted of a dorsal plaster slab which limited wrist extension to 30 degrees of flexion. The finger was tethered to the palm via a silk suture and rubber band traction device. Active extension from this tethered position was encouraged three times daily for exercise periods of five minutes each. The patient was urged to extend the proximal interphalangeal joint and the distal interphalangeal joint to neutral reaching the limits of the dorsal plaster slab.

Splinting was discontinued at the end of three weeks and active flexion-extension exercises were begun. If a flexion contracture persisted beyond six weeks, extension splinting in the form of safety pin splints or clockspring splints was employed. Active and passive resistive exercises were prohibited for a period of eight to ten weeks postoperatively.

RESULTS

The following system of grading was devised for purposes of classifying digital range of motion: An excellent result was achieved when the tip of the digit approximated to within one cm. or less of the palmar flexion crease and had a total loss of extension, including the sum total of the metacarpal phalangeal, proximal interphalangeal and distal interphalangeal joints, of 20 degrees or less. A good result was 1.5 cm. or less from the flexion crease and a total loss of extension of 35 degrees or less. A fair result was between two cm. and 1.5 cm. from the flexion crease and a total of 50 degrees

Table 1
Digits Involved

Digit	Number of Potients	With Accomponying Nerve Injury	Involvement of Both Tendons
Index	5	3	4
Middle	3	1	2
Ring	3	2	1
Little	7	4	6

Toble 2
Grading Criteria

Result	From Polmar Flexion Crease	Extension Loss
Excellent	1 cm. or less	20° or less
Good	1 cm. to 1.5 cm.	35° or less
Fair	1.5 cm. to 2 cm.	50° or less
Foilure	Greater than 2 cm.	Greoter thon 50°

Table 3
Results

Excellent	= 9	50%
Good	= 6	33%
Foir	= 1	6%
Failure	= 2	11%

Toble 4
Nerve Injury Result
Two-Point Discriminatian

Patient	Digital Nerve Involved	Result
B.H.	Little – Ulnar	Normal *
C.C.	Little – Common	4 mm.
M.Z.	Index – Rodial ond Ulnor	None
M.H.	Index – Ulnor, Middle – Radial	Finger Amputoted
R.K.	Ring – Rodial	8 mm.
S.F.	Ring – Radial	7 mm.
D.T.	Little – Ulnor	8 mm.
A.P.	Middle – Ulnar	Lost to follow up
N.R.	Index – Common	Lost to follow up
R.D.	Little – Ulnar ond Rodial	Lost to follow up

* Normal means two-point discriminotion in the injured digit equivolent to the controloteral finger ond no symptoms in the injured finger.

Toble 5
Complications

Disruption of Repoir	= 4
Adherent Distal Pulley	= 1
Fixed Flexion Contracture	= 1 = Roy Resection

or less loss of extension. A poor result, or failure, was greater than two cm. from the flexion crease and a greater than 50 degree loss of full extension in the affected joints. (Table 2) Either a loss of flexion or extension could affect the classification in this manner. Half of the cases were thereby classified excellent, 33 percent as good, six percent as fair, and 11 percent as failures. (Table 3) Where sufficient follow-up was possible, digital nerve repair averaged a two-point discrimination of 7.5 mm. (Table 4)

COMPLICATIONS

Six complications occurred comprising one-third of the patients. (Table 5) Four of these were disruptions of the repair, one was an adherent tendon at the distal pulley and one was a fixed flexion contracture and damaged extensor mechanism resulting from over-zealous use of an extension splint. This eventually resulted in ray resection.

The tendon disruptions did not create a failure automatically since three of these left the other tendon intact. The fourth, however, went unreported to the physician and resulted in a severe flexion contracture that led to ray resection complicated by extensor tendon injury due to pressure from the pad of a safety-pin splint.

Tendon disruptions were felt to be due to either suture knot disruption or elongation of the repair site secondary to the Bunnell type crisscross suture.

CONCLUSION

The technique of primary flexor tendon repair in "no-man's land" in wounds that can be rendered surgically clean can give a high percentage of favorable results if careful surgical technique is coupled with equally careful post-operative care and enlistment of patient understanding and cooperation.

It should be noted that a higher rate of success occurred in the second two years (Table 6), compared to the first two (Table 7), suggesting that improved technique and more experienced management might improve results.

Table 6
Primory ond Deloyed Primory Repoirs of Flexor Tendons
1976-1977

Treatment Date	Age Sex	Digit Tendon Involved	Nerve Injury	Type of Repair	Range of Motion	Result	Comments and or Complication
2/76	17-M	Little Both	Both digital	Primary Profundus	20/95 0/75 Full TPFC	Excellent	
3/76	26-M	Middle Both	None	Primary Both	0/105 0/75 Full TPFC	Excellent	
4/76	18-M	Ring Both	None	Primary Both	0/95 0/65 1 cm. FPFC	Excellent	
5/76	38-M	Index Both	None	Delayed Primary Both	25/100 0/75 1 cm. FPFC	Good	
6/76	21-M	Index Both	None	Primary Both	0/100 0/62 2 cm. FPFC	Good	
11/76	53-M	Ring Profundus	Radial digital	Primary Advancement Single	10/102 0/0	Good	Repair disrupted
12/76	42-F	Little Profundus	None	Primary Single	0/90 0/90 0/75 0.5 cm. FPFC	Excellent	
2/77	9-F	Ring Profundus	Radial digital	Primary Single	0/85 3/103 0/46 0.5 cm. FPFC	Excellent	
6/77	14-M	Little Both	None	Primary Both	0/85 0/103 0/70 Full TPFC	Excellent	
7/77	14-M	Little Both	Ulnar digital	Primary Both	15/84 0/95 0/80 Full TPFC	Excellent	

Table 7
Primary ond Deloyed Primary Repoirs of Flexor Tendons
1974-1975

Treatment Date	Age Sex	Digit Tendon Involved	Nerve Injury	Type of Repair	Range of Motion	Result	Comments and Complication
10/74	8-F	Little Both	None	Primary Both	0/full 0/115 0/32 1.2 cm. FPFC	Good	Adherent distal Pulley
10/74	12-F	Little Both	Ulnar digital	Primary Both	0/93 0/0 1.7 cm. FPFC	Good	Disrupted repair
8/75	19-M	Little Both	Common digital	Primary Profundus	0/90 0/75 Full TPFC	Excellent	
10/75	20-M	Index Profundus	Both digital	Primary Single	10/95 30/30	Good	Repair disrupted
11/75	14-F	Middle Sublimus	None	Primary Single	Full range of motion	Excellent	
11/75	36-F	Index Both	Both digital	Primary Both	28/70	Failure	Fixed flexion contracture
11/75	20-M	Middle Both	Ulnar digital	Primary Both	83/97 50/50	Failure	Disruption; flexion contracture
12/75	19-F	Index Both	Common digital	Primary Both	30/75 15/100 10/60	Fair	Lost to follow up at 7 weeks

REFERENCES

1. Verdan CE: The decades of tendon surgery. In: *American Academy of Orthopedic Surgeons Symposium on Tendon Surgery in the Hand*. St. Louis, Mosby, 1974, pp. 6-13.

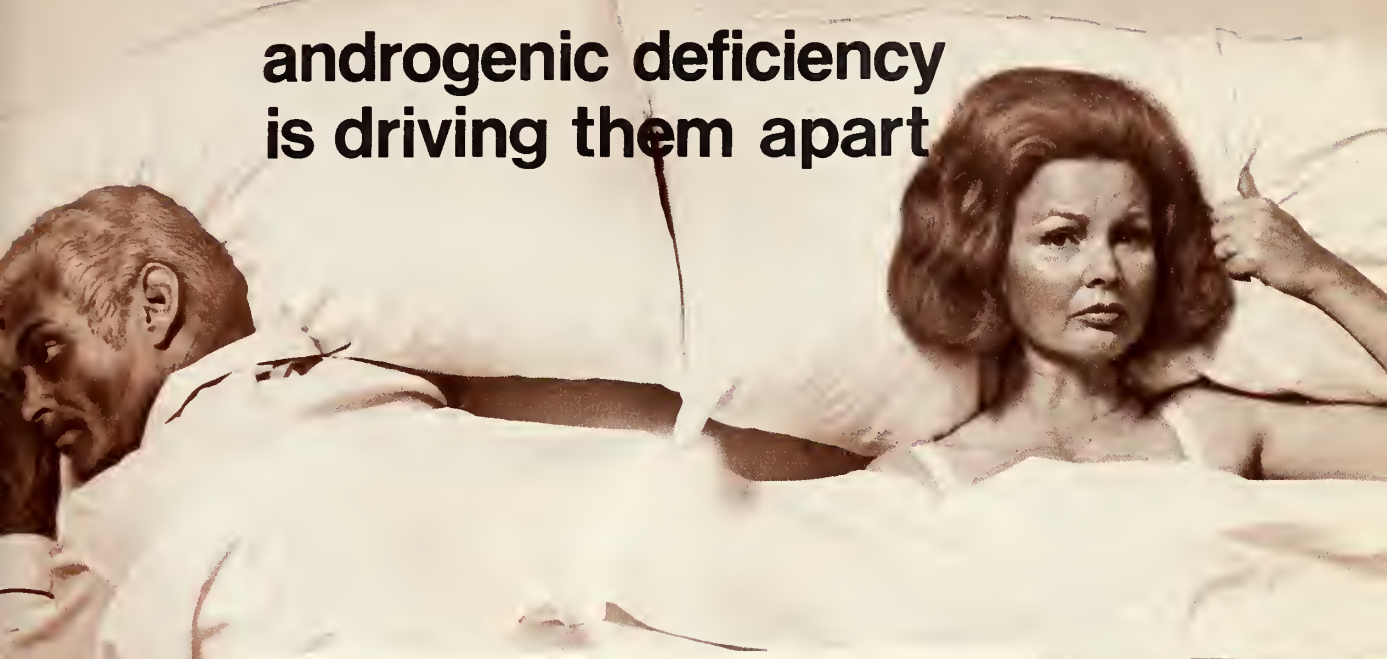
2. Kleinert HE, Kutz JE, Cohen MJ: Primary repair of zone 2 flexor tendon lacerations. In: *American Academy of Orthopedic Surgeons Symposium on Tendon Surgery in the Hand*. St. Louis, Mosby, 1974, pp. 91-104.

3. Bunnell S: Repair of tendons in the fingers. In: *American Academy of Orthopedic Surgeons Symposium on Tendon Surgery in the Hand*. St. Louis, Mosby, 1974, pp. 301-307.

4. Kleinert HE and Meares A: In quest of the solution to severed flexor tendons. *Clin Orthop & Rese* 104:23-29, (October) 1974.

When **impotence** *due to*

androgenic deficiency is driving them apart





Android®-5 Buccal Tabs
Android®-10 Oral Tabs
Android®-25 Oral Tabs

Methyltestosterone U.S.P. – 5, 10, 25 mg.

Additional Indications:
REPLACEMENT THERAPY. When Androgen Deficiency is cause of:

- Male Climacteric
- Eunuchoidism, Eunuchism
- Post-Puberal Cryptorchidism

New Double-Blind Study ANDROID-25 vs. Placebo*

*R. B. Greenblatt, M.D.; R. Witherington, M.D.,; I. B. Sipahioglu, M.D.; Hormones for Improved Sexuality in the Male and Female Climacteric. **Drug Therapy,** Sept. 1976.

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE: Robert B. Greenblatt, M.D.,** and **D. H. Perez, M.D.:** "The Menopausal Syndrome," *Problems of Libido in the Elderly,* pp. 95-101. Medcom Press, N.Y., 1974. **HOW SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

BROWN **THE BROWN PHARMACEUTICAL CO., INC.** 2500 West Sixth Street, Los Angeles, California 90057

REFER TO PDR

Write for Reprints and Samples



IN THE NEW JERSEY AREA, STAPH RESISTANCE HAS NOW REACHED 86%.*

*resistance to penicillin G among community-acquired staph infections. Data on file, Bristol Laboratories.

WHEN YOU CAN'T RULE OUT STAPH, CONSIDER

TEGOPEN®
(cloxacillin sodium)

"...THE PENICILLIN OF TODAY"

- Effective against nonpenicillinase-producing staphylococci, beta-hemolytic streptococci, and pneumococci.†

†NOTE: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin. The clinical significance of *in vitro* data is unknown.

- 10 times more active against strep than staph.
- Well absorbed from the G.I. tract.‡

‡Maximum absorption occurs when Tegopen is taken on an empty stomach, preferably 1-2 hrs. before meals.



Please see brief summary for prescribing information.

Brief Summary of Prescribing Information
Combined TEGOPEN® (cloxacillin sodium)
Capsules and Oral Solution
For complete information, consult Official Package Circular. (12) TEGOPEN 9/11/75

Indications: Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

Important Note: When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

Contraindications: A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

Warning: Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

Precautions: The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

Adverse Reactions: Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

Usual Dosage: Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B.: INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

Supplied: Capsules—250 mg. in bottles of 100, 500 mg. in bottles of 100. Oral Solution—125 mg./5 ml. in 100 ml. and 200 ml. bottles.

BRISTOL®
BRISTOL LABORATORIES
Division of Bristol-Myers Company
Syracuse, New York 13201

KATE MACY LADD CONVALESCENT HOME

FAR HILLS, N.J.

John F. Dixon, Jr., M.D., DABFP
MEDICAL DIRECTOR

Don T. Van Dam, M.D., FAAFP
ASST. MEDICAL DIRECTOR

"Skilled Convalescent Care Without Charge"

Newark Office — For all information
744 Broad St.
Newark, N. J.
07102
Tel: 201-MA 2-1484

Over 19,000 admissions since 1949

KESSLER INSTITUTE FOR REHABILITATION

West Orange, New Jersey

Affilioted with the College of Medicine ond Dentistry of New Jersey

A voluntary, non-profit specialty hospital founded in 1949 serving physically handicapped children and adults. The newly opened pavilion, together with the modernization of existing facilities, provide intensive and comprehensive medical, social, psychological and vocational services for patients with spinal cord injuries, stroke, amputations or any physical impairment due to congenital condition, accident or disease.

Total facilities include a 76 bed inpatient wing, separate outpatient department, complete hydrotherapy unit, speech and audiology services.

Fully accredited by the Joint Commission on Accreditation of Hospitals and the Commission on Accreditation of Rehabilitation Facilities.

Provider of hospital services under Medicare and Medicaid.

* * * * * *

ADMISSION BY MEDICAL REFERRAL TO DIRECTOR OF ADMISSIONS

* * * * * *

RICHARD A. SULLIVAN, M.D.
Medical Director

WILLIAM K. PAGE, Executive Director
Telephone: 731-3600

Bleomycin-Induced Injury to the Hands

DANIEL MALCOLM, M.D., Teaneck*

Three patients who received cancer chemotherapy with bleomycin abruptly developed circulatory insufficiency of the fingers leading to gangrene of the fingertips. The pathogenesis of this syndrome appears to be different from other reported instances of skin necrosis caused by bleomycin. Drug-induced arteriolar insufficiency is proposed as the mechanism of tissue injury.

This report concerns three patients who developed gangrene of the fingertips while receiving bleomycin. This syndrome has not been emphasized in the literature. The mechanism of injury is unknown, but the clinical picture is suggestive of a drug-induced arteriolar insufficiency syndrome.

CASE ONE

An 18-year-old white male was treated for lymphosarcoma of lymph nodes, liver, and spleen with bleomycin, cyclophosphamide, vincristine, and prednisone. After a total dose of 240 units of bleomycin, he complained of pain, coolness, and blue discoloration of the fingers. All fingers except the thumbs of both hands were cold, cyanotic, and tender. There was brown pigmentation of the skin over the proximal and distal interphalangeal joints, but the skin was normally pliable and the hands were fully mobile. The feet were unaffected. All peripheral pulses were normal. Dry gangrene of the tips of several fingers supervened despite cessation of bleomycin therapy (Figures 1, 2). These lesions healed slowly with separation of the larger necrotic areas. X-rays of the hands and feet were normal. A test for cryoglobulins was negative; serum protein electrophoreses and serum levels of IgG, IgM and IgA were normal. Chest x-ray was normal; the patient had neither cough nor dyspnea.

CASE TWO

A 55-year-old white female was treated for metastatic epidermoid carcinoma of the larynx with bleomycin and methotrexate. After a total of 495 units of bleomycin had been given, she noted blue discoloration of the fingernails. All digits of both hands except the thumbs were cyanotic, cool, and tender. The feet were normal. All peripheral pulses were normal. Ulceration of the tips of several fingers followed despite cessation of bleomycin therapy, and these lesions healed slowly with subcutaneous scarring. Punch biopsy of the pad of an affected finger showed only slight increase in dermal collagen which was not homogenized; the blood vessels and the adnexal structures were not compressed. She had no respiratory complaints and chest x-ray was normal.

CASE THREE

A 31-year-old white male was treated for metastatic embryonal cell tumor of the testis with bleomycin and vinblastine. Febrile reactions to bleomycin were aborted by the administration of prednisone shortly before his chemotherapy injections. Bleomycin was given weekly into ante-

*Correspondence may be addressed to Dr. Malcolm at 179 Cedar Lane, Teaneck, New Jersey 07666.



Figure 1—View of hands, case #1



Figure 2—View of hands, case #1



Figure 3—View of hands, case #3



Figure 4—View of hands, case #3

cubital veins until a total of 430 units had been administered. At that point, sclerosis of veins was becoming evident and thereafter bleomycin was given intramuscularly. Bleomycin therapy was further complicated by the development of painful erythema of the skin of both elbows that became worse with ensuing injections and progressed to ulceration of the skin over both elbows and by the development of a urethral stricture requiring dilatation.

He experienced the sudden onset of pain and cool pallor of the fingers with cyanosis of the nailbeds when he had gotten a total of 985 units of bleomycin. All fingers of both hands except the thumbs were involved. The feet were unaffected. Right brachial angiogram showed narrowed vessels with marked attenuation of both the dorsal and volar arches. No occlusions were seen. All therapy was stopped, but he developed multiple areas of skin necrosis on the fingertips of the right hand (Figures 3, 4). These healed slowly as did the skin over the elbows. Chest x-ray was normal; he had no cough or dyspnea.

DISCUSSION

Ulcerations of the skin of various locations including the fingertips have been cited as a manifestation of cutaneous toxicity of bleomycin.[1] This was characterized as being preceded by an initial phase of erythema. The locations of these cutaneous lesions were associated with pressure or abrasion, though the feet were not listed among the specific areas cited. The lesions of the elbows of the third patient of this series conformed to what was described; but the ulcers of the fingers in all three patients evolved more suddenly, with striking initial cyanosis, pallor, and coolness of the fingers. This suggests vascular compromise, probably at the arteriolar level, as an initial factor leading to tissue damage in the fingers. The reason for the symmetrical involvement of the fingers of the hands with sparing of the thumbs and the absence of involvement of the feet is not apparent.

Vascular compromise of the fingers leading to ulceration has been reported as a consequence of a scleroderma-like process in which dense dermal sclerosis compromised the local blood supply.[2] This mechanism was sought but was not found in the biopsy of a finger of the second patient of this series.

Experimentally, multifocal necrotizing arteritis and thickening and obliteration of the veins through which bleomycin was administered have been produced in rhesus monkeys.[3] Necrotizing skin ulcers also were seen in the paws of these animals. Monkeys react to bleomycin with more generalized inflammation than other species,[3] but perhaps these observations are pertinent to the third patient of this series who received a high cumulative dose of bleomycin and who developed sclerosis of antecubital veins in addition to other lesions.

In mice, injury to the pulmonary arterial and venous endothelium initiates capillary damage and interstitial pulmonary edema.[4] This is a prelude to pulmonary fibrosis in mice. Apart from species differences, the factors leading to injury of the pulmonary vascular bed may be different from those producing digital vascular injury. None of the

patients in this series had symptoms or x-ray findings of bleomycin lung toxicity.[5]

The reactions reported here conceivably could be the result of the use of bleomycin in combination with other agents. However, all of the drug combinations were different, and bleomycin was the sole agent administered in common to all patients. It is also unlikely that this syndrome was a manifestation of malignancy per se, since the three patients had different types of tumors and the patient with lymphoma did not have a dysproteinemia. The injury therefore seems to be a toxic effect of bleomycin per se.

The clinical picture of digital circulatory compromise was remarkably uniform: patients receiving bleomycin for malignancy suddenly developed pain and pallor or cyanosis of the fingers of both hands. The thumbs were spared, and the feet were not involved. There was rapid progression to necrosis of some fingertips, which healed slowly with separation and scarring. Other muco-cutaneous manifestations of bleomycin toxicity[1,2,6,7] were present, but were minor with the exception of the necrotizing elbow ulcers and urethral stricture in the third patient. There are no reports of urethritis or urethral stricture caused by bleomycin, though it seems likely that this mucous membrane was affected in the third patient. He denied extramarital sex contacts, and he never had signs or symptoms of venereal disease.

This syndrome, suggesting severe digital arteriolar compromise, is a distinctive manifestation of bleomycin toxicity that has received scant attention in the literature. The intimate mechanisms of injury remain to be elucidated.

bleomycin – Blenoxane®
cyclophosphamide – Cytoxan®
vincristine – Oncovin®
vinblastine – Velban®

REFERENCES

1. Yagoda A, Mukherji B, Young C, Etcubanas E, Lamonte C, Smith JR, Tan CTC, Krakoff IH: Bleomycin, an anti-tumor antibiotic. *Ann Int Med* 77:861-870, 1972.
2. Cohen IS, Mosher MB, O'Keefe EJ, Klause SN, De Conti RC: Cutaneous toxicity of bleomycin therapy. *Arch Derm* 107:553-555, 1973.
3. Schaeppi V, Thompson GR, Fleischman RW, Baher JR, Rosenkrantz H, Ilievski V, Cooney DA, and David RD: Preclinical toxicologic evaluation of bleomycin (NSC 125066) in rhesus monkeys. *Cancer Chemotherapy Reports* Part 3,4: 31-39, 1973.
4. Adamson IY and Bowden DH: The pathogenesis of bleomycin-induced pulmonary fibrosis in mice. *Am J Pathol* 77:185-197, 1974.
5. Sostman HD, Matthay RA, and Putman CE: Cytotoxic drug-induced lung disease. *Am J Med* 62:608-615, 1977.
6. De Bast C, Moriame N, Wanet J, Ledoux M, Achten G, and Kenis Y: Bleomycin in mycosis fingoides and reticulum cell lymphoma. *Arch Derm* 104:508-512, 1967.
7. Maher MB, De Conti RC, and Bertino JR: Bleomycin therapy in advanced Hodgkins disease and epidermoid cancers. *Cancer* 30: 56-60, 1972.

212th Annual Meeting
May 6-9

Headquarters Hotels

Holiday Inn — Howard Johnson's Regency

Atlantic City

See lodging reservation form — pg. 351 this issue

Perforating Ocular Injuries—A Second Look

BARRY A. MALTZMAN, M.D.,
KENNETH ENG, M.D.,
ALFONSE A. CINOTTI, M.D., Newark*

Trauma is a leading cause of blindness in New Jersey. A recent study[1] of trauma in the major hospital affiliates of the New Jersey Medical School showed that over 7.5 percent of all "eye admissions" were for trauma. A 20-year review by Lim and Cinotti[2] of 890 consecutive eye enucleations performed at the Newark Eye and Ear Infirmary (United Hospitals, Newark) showed that trauma produced the largest number of cases (352) or 39.7 percent. This review shows an improved visual prognosis in recent trauma cases because of improved diagnostic and therapeutic techniques.

In a three-year retrospective survey by Cinotti and Maltzman[3] of 77 cases of perforating eye injuries admitted to affiliated hospitals of the New Jersey Medical School, prognostic indicators and surgical treatments were outlined. The survey showed that violence accounted for the greatest number of cases. The second most common etiology was industrial accidents, which caused about half as many perforating eye injuries as violence. Isolated corneal injuries had the best prognosis, with nearly 45 percent of the cases having greater than 20/40 vision, whereas scleral involvement resulted in nearly 45 percent of the eyes being blinded or enucleated. In cases with vitreous involvement, 70 percent of the eyes were similarly lost.

The high incidence of violence and industrial trauma in the Jersey City/Newark areas and the high morbidity of perforating ocular injuries have called for re-examination which has taken the form of a two-year retrospective survey of all such cases admitted to the same hospitals. There were a total of 36 documented cases. The aim of the present study is to substantiate any change in the etiologies and improvements in the visual results from those of the original study. The treatment of all cases closely adhered to the recommendations outlined in Cinotti and Maltzman's original article with two exceptions: (1) In three patients in whom only small corneal perforations occurred, treatment consisted of the therapeutic use of soft contact lenses. This treatment modality has been widely described, most recently by Liebowitz,[4] Shaver,[5] and Citron.[6] The visual results of these three cases were very good. (2) In three other patients anterior vitrectomies were performed, as described by Gardner[7] and Hutton.[8] Following vitrectomy, one of the three cases recovered 20/40 vision. The other two cases had finger-counting vision.

ETIOLOGY

A list of the most common etiologies (Table 1) shows that violence or assault still accounts for the greatest number of perforating eye injuries, but its incidence dropped significantly from 44.2 percent to 27.7 percent. On the other hand industrial accidents increased from 23.4 percent in the original study to 25 percent. Children at play comprised the third most frequent etiology (8.3 percent) which was equaled in frequency by domestic-related injuries and non-spectacle glass. Automobile accidents accounted for only one case in the series (2.8 percent).

In this study, reviewed cases were divided into those admitted to the Jersey City Medical Center and the Newark Eye and Ear Unit of United Hospitals (Table 2). In Jersey City, the most frequent cause of perforating eye injuries was

*From the Department of Ophthalmology, New Jersey Medical School-CMDNJ, Newark, and affiliates: Newark Eye and Ear Unit of United Hospitals and Jersey City Medical Center. Dr. Maltzman is Clinical Assistant Professor; Dr. Cinotti is Professor and Acting Chairman, Department of Ophthalmology, and Dr. Eng is House Officer, New Jersey Medical School, CMDNJ, Newark.

Table 1
Etiology of Injuries

Etiology	# of Cases	% of Total	No. of Enucleations
Assault	10	27.7	3
Industrial	9	25.0	0
Children at Play	3	8.3	0
Domestic	3	8.3	1
Glass (Non-Spectacle)	3	8.3	1
Automobile	1	2.8	1
Other	7	19.6	0
Total	36	100.0	6

Table 2
Etiologies: Newark Eye and Ear vs. Jersey City

	Newark Eye & Ear		Jersey City Med. Ctr.	
	# of Cases	% of Total	# of Cases	% of Total
Assault	9	39.1	1	7.7
Industrial	4	17.4	5	38.5
Children at Play	1	4.3	2	15.4
Domestic	3	13.0	0	0.0
Glass (Non-Spectacle)	1	4.3	2	15.4
Automobile	0	0.0	1	7.7
Other	5	21.9	2	15.3
Total	23	100.0	13	100.0

industrial accidents (38.4 percent), followed by children at play (15.4 percent) and non-spectacle glass (15.4 percent). Assault accounted for only one case (7.7 percent). In contrast, Newark's etiologic frequency resembled the original article's findings more closely. Assaults in Newark contributed 39.1 percent of the cases, and industry followed with 17.4 percent. The differences noted between Jersey City and Newark probably reflect the greater number of aggravated assaults reported in Newark: 2,444 cases in Newark (1975) and 605 in Jersey City (1975).[9]

As in the original article, nearly one-third (30 percent) of assault-related perforating ocular injuries resulted in enucleation, compared to just one enucleation of industrial etiology (11.1 percent). Domestic-related accidents caused a surprisingly large number of injuries (8.3 percent), and they are even more significant because a poor prognosis followed. Of the three cases, all had poorer than 20/40 visual acuity, and one was enucleated.

Overall, the survey shows that the morbidity from perforating eye injuries has decreased due to greater precautionary and safety measures in industry and everyday life.

SITE OF INJURY

The site of the perforation was classified as corneal, scleral, or combined corneoscleral (Table 3). Visual prognosis was divided into four categories: (a) 20/40 or better, (b) 20/50-20/200, (c) less than 20/200, and (d) no light perception or enucleation. Table 4 illustrates visual results following each site of injury. The best prognosis was for pure corneal wounds, with over 41 percent resulting in better than 20/40 vision. This encouraging result closely parallels the 45 percent found in the previous study. The poorest prognosis followed scleral and corneoscleral injuries, resulting in loss of vision or enucleation. In the original article the results were 46 percent and 45 percent respectively. In any injury involving the sclera (19 cases), eight cases (42 percent) resulted in no light perception, with six cases (31 percent) requiring enucleation. Therefore, the likelihood of any vision remaining after scleral involvement (11 of 19) is slightly greater than 50 percent. Overall, nine out of thirty-six (25 percent) resulted in blindness or enucleation. All of the above percentages closely approximate those of the previous study.

In 14 cases accompanied by vitreous involvement (Table 4), seven cases (50 percent) resulted in total loss of vision with five (36 percent) enucleations, as compared to 55 percent being enucleated in the original study. Roper-Hall reported a 50 percent rate of enucleation when the vitreous was involved.[10] As poor as the prognosis appears, the figure reported in the present review is a significant improvement over the 70 percent loss of vision reported in the earlier article. Moreover, three of the fourteen cases (21 percent) recovered better than 20/40 vision, as compared to none in the earlier study. Undoubtedly, the high percentage of lost vision (50 percent) is still due to the great distortion of anatomy, hemorrhage, infection and the panophthalmic injury incurred in injuries with vitreous involvement.

The improved prognosis offered in this later study is accounted for by better and more aggressive treatment of such cases since the time of the earlier article. The advent of new techniques including ultrasound, electroretinography and vitrectomy available at the Eye Institute (Newark) have contributed immensely to the prevention of abnormal traction scarring. Eagling[11] reports that the principal cause of poor visual prognosis following posterior segment injuries is traction retinal detachment. One of the three cases treated with vitrectomy in this series obtained an excellent result (20/40). Vision was preserved in the other two cases. Without vitrectomy procedures, the normal healing process may form traction bands causing retinal detachment and macular disease.

SUMMARY

A two-year retrospective review of 36 perforating eye injuries was examined in order to contrast and compare etiologies and visual results with those described in a previous article by the same authors.[3] The most frequent etiol-

Table 3
Visual Results

Site of Injury	A	B	C	D	Total	% of Total
Cornea	7	5	4	1	17	47.2
Sclera	1	1	1	3 (2)	6	16.7
Combined	3	3	2	5 (4)	13	36.1
Total	11	9	7	9 (6)	36	100.0
% of Total	30.6	25.0	19.4	25.0	100.0	

Key: A = 20/40 +
B = 20/50 – 20/200
C = Less than 20/200
D = No L.P. or Enucleation
( ) = Enucleation

Table 4
Vitreous Involvement
(14 or 39% of 36 Eyes Studied)

Site of Injury	A	B	C	D	Total	% of Total
Corneal	1	0	0	0	1	7.1
Sclera	0	1	1	3 (2)	5	35.7
Combined	2	1	1	4 (3)	8	57.2
Total	3	2	2	7 (5)	14	100.0
% of Total	21.4	14.3	14.3	50.0	100.0	

Key: A = 20/40+
B = 20/50 – 20/200
C = Less than 20/200
D = Enucleation

ogy in Newark was assault, as discussed in the original article. In Jersey City, however, industrial accidents were the most common etiology. Almost one-third of the assault-related eye injuries resulted in enucleation, as compared to only one-tenth of the industrial perforations. In both cities poor prognoses followed scleral injury or vitreous loss (50 percent rate of lost vision). Treatment followed the suggestions made in the original work. Two new additional methods of treatment used were: (1) hydrophilic soft contact lenses for small corneal perforations without uveal prolapse, and (2) vitrectomies in three cases involving vitreous loss. The addition of modern diagnostic and treatment modalities in the ophthalmic community have contributed significantly to improved visual results. However, emphasis on preventive measures should be stressed as the best treatment.

REFERENCES

1. Maltzman BA, Pruzon H, and Mund M: A survey of ocular trauma. *Surv Ophthal* 21:285-290, 1976.
2. Lim JKF and Cinotti AA: Causes for removal of the eye: A study of 890 eyes. *Ann Ophthal* 8:865-869, 1976.
3. Cinotti AA and Maltzman BA: Prognosis and treatment of perforating ocular injuries. *Ophthal Surg* 6:54-61, 1975.
4. Liebowitz HM: Hydrophilic contact lenses in corneal disease. IV. Penetrating corneal wounds. *Arch Ophthal* 88:602-606, 1972.
5. Shaver RP: Contact lenses and their clinical use. *South Med J* 67:1207-1208, 1974.
6. Citron J, *et al:* The use of therapeutic soft contact lenses in corneal disease. *Mayo Clin Proc* 50:443-452, 1975.
7. Gardner RC: Anterior vitrectomy. *Ann Ophthal* 7:723-726, 1975.
8. Hutton WL: Vitrectomy in the treatment of ocular perforating injuries. *Am J Ophthal* 81:733-739, 1976.
9. Crime in the United States 1975. Dept. of Justice, Federal Bureau of Investigation, U.S. Government Printing Office, Washington, D.C., 1976.
10. Roper-Hall M.D.: Perforating ocular injuries. *Proc Royal Soc Med* 60:597, 1967.
11. Eagling EM: Perforating injuries involving the posterior segment. *Trans Ophthal Soc UK* 95:335-339, 1975.

THE LOWER G.I. TRACT: ORGANICALLY SOUND



Celiac angiography is one of a number of highly specialized diagnostic techniques sometimes necessary to rule out organic causes of abdominal pain.

...BUT OVERSENSITIVE TO EMOTIONAL STRESS



IN IRRITABLE BOWEL SYNDROME* LIBRAX PROVIDES DISTINCTIVE ADVANTAGES

- the specific antianxiety action of Librium®(chlordiazepoxide HCl)
- the potent antispasmodic action of Quarzan®(clidinium Br)

Adjunctive/Dual-Action

LIBRAX®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

A clear treatment advantage for patients with irritable bowel syndrome

ROCHE

*This drug has been evaluated as possibly effective for this indication.
Please see following page for brief summary of prescribing information.

A CLEAR TREATMENT ADVANTAGE FOR PATIENTS WITH IRRITABLE BOWEL SYNDROME*



Adjunctive/Dual-Action LIBRAX®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

ONLY LIBRAX PROVIDES THE SPECIFIC ANTIANXIETY ACTION OF LIBRIUM® (chlordiazepoxide HCl) PLUS THE POTENT ANTISPASMODIC ACTION OF QUARZAN® (clidinium Br)

Please consult complete prescribing information, a summary of which follows:

* **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
Final classification of the less-than-effective indications requires further investigation.

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium® (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacologic effects of agents, particularly potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are avoidable in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of the mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

Dosage: Individualize for maximum beneficial effects. Usual maintenance dose is 1 or 2 capsules, 3 or 4 times a day, before meals and at bedtime. Geriatric patients—see Precautions.

How Supplied: Librax is available in green capsules, each containing 5 mg chlordiazepoxide hydrochloride (Librium®) and 2.5 mg clidinium bromide (Quarzan®)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50, available singly and in trays of 10.

ROCHE Roche Products Inc.
Manati, Puerto Rico 00701

CASE REPORT

Azathioprine-Induced Megaloblastic Erythropoiesis

LUZ TORRES, M.D., SIDNEY TRUBOWITZ, M.D.,
STEPHEN DAVIS, M.D., East Orange*

The toxic effects of azathioprine, an important drug in the treatment of connective tissue diseases and renal transplant recipients, are mainly on the bone marrow. Leukopenia, anemia, and panmyelopathy, contrary to popular belief, are less common than megaloblastic erythropoiesis and macrocytosis. Our patient, who was treated with azathioprine following renal transplantation, developed this complication. Specific treatment measures are discussed.

Azathioprine frequently is used in the long-term management of patients with connective tissue diseases and cadaveric renal allografts. Hematologically, azathioprine toxicity usually is recognized as leukopenia, anemia, and panmyelopathy.[1]

It became apparent following the widespread use of a Coulter Counter (model S) that most patients receiving chronic azathioprine therapy developed a high red cell mean corpuscular volume (MCV) as a consequence of megaloblastic erythropoiesis.[2] These findings are an acceptable manifestation of drug toxicity because they rarely are associated with significant anemia.[3]

We recently observed a patient with a stable renal allograft who developed macrocytosis, megaloblastic bone marrow, and severe anemia. Therapy with folinic acid corrected the anemia but not the macrocytosis or megaloblastosis; however, these morphologic abnormalities normalized with cessation of azathioprine therapy. This case and review of the literature allow us to suggest mechanisms that may be operative in this common but poorly delineated hematologic syndrome.

CASE REPORT

A 43-year-old man was admitted to the East Orange Veterans Administration Hospital in October 1976 because of severe anemia. In June, 1973, he underwent a cadaveric renal transplant because of end-stage hypertensive renal disease. The post-operative course was uncomplicated and he subsequently was discharged to clinic. His medications included azathioprine 100 mg/day and prednisone 20 mg/day. On this regimen his hemoglobin ranged between 10 and 12 gm/dl with a normal MCV; white blood cell and platelet counts were normal.

In May 1976, he was admitted to the hospital with an abscess in the right thigh. His hemoglobin was 11.9 gm/dl with an MCV 98μ^3 (normal: 82-98 Coulter S counter). Drainage and oxicillin therapy were instituted. He healed without sequelae and was discharged.

He was readmitted in August 1976 for uncontrolled diabetes which required 40 units per day of isophane insulin suspension. His hemoglobin on this admission was 11.0 gm/dl with an MCV 103μ^3. Thus, macrocytosis, as evidence of toxicity, appeared for the first time some three years after initiation of azathioprine suppression.

On the present admission, Cushingoid facies, conjunctival pallor, and cardiomegaly were present. Laboratory data included: hemoglobin 7.0 gm/dl, hematocrit 20.1%, MCV 107μ^3. The white blood cell count was 7,100 with a normal

*This study, from the oncology-clinical immunology and hematology sections, Veterans Administration Hospital, East Orange, New Jersey and CMDNJ-New Jersey Medical School, Newark, New Jersey, was supported by research funds of the Veterans Administration. Correspondence may be addressed to Stephen Davis, M.D., Chief, Oncology-Clinical Immunology Section, Veterans Administration Hospital, East Orange, New Jersey 07019.

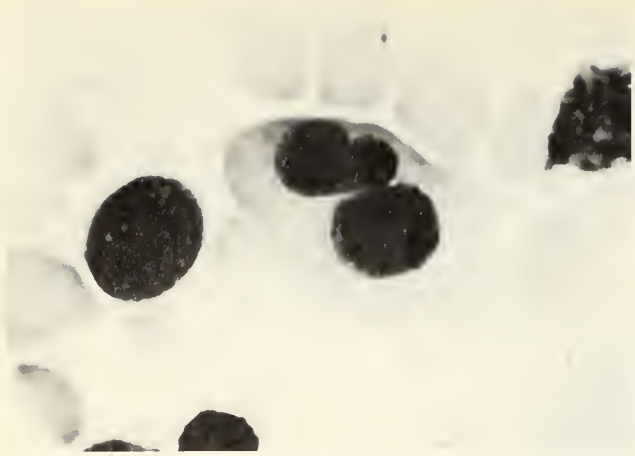


Figure 1 — Bone marrow aspirate from patient showing a binucleated, megaloblastic, polychromatophilic normoblast.

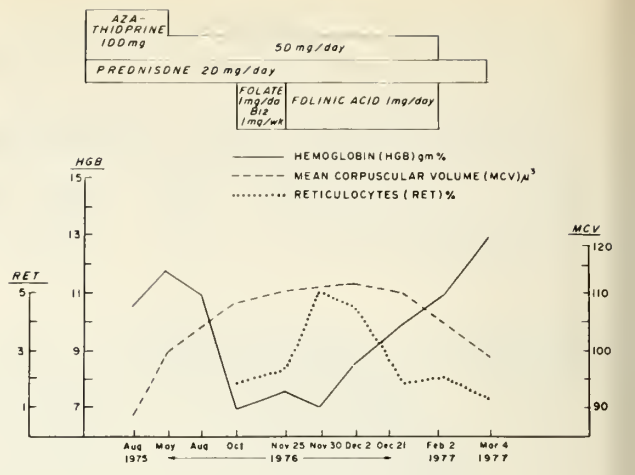


Figure 2

differential; the platelet count was 195,000. Reticulocyte count was 1.9%. The remainder of the blood chemistries including liver function tests and the urinalysis were normal. Work-up for hemolysis and occult bleeding were negative. Serum folate activity and B_{12} levels were normal. A bone marrow aspirate showed megaloblastic changes of the red cell series only (Figure 1). Vitamin B_{12} 1000 μg intramuscularly weekly and folic acid one mg daily, orally, were instituted (Figure 2).

Following five weeks of therapy (Figure 2—Nov. 25) the hemoglobin was 7.6 gm/dl, hematocrit 22%, MCV 109μ^3, reticulocyte count 2.2%. A repeat bone marrow continued to show megaloblastic changes. Folinic acid, one mg daily was started. Five days after institution of folinic acid (Figure 2—Nov. 30) the hemoglobin was 7.5 gm/dl, hematocrit 21.0%, MCV 111μ^3, reticulocyte count 4.4%. Folinic acid was continued until December 21, 1976; at this time the hemoglobin was 10.1 gm/dl, hematocrit 30%, MCV 110μ^3, reticulocyte count 2.2%. A repeat bone marrow again showed megaloblastosis. By February 2, 1977 (Figure 2) the hemoglobin had increased to 11.2 gm/dl; however, the bone marrow was megaloblastic and the MCV 107μ^3. At this time the azathioprine was discontinued when slight elevations of liver function tests (LDH, SGOT, SGPT) were observed for the first time. One month following cessation of azathioprine therapy, the hemoglobin was 13.7 gm/dl, MCV 98μ^3, reticulocyte count 1.0%. A bone marrow aspirate showed normal morphology and cellularity.

COMMENTS

Azathioprine is used universally to treat connective tissue diseases and in the management of the rejection phenomenon in renal allograft recipients. In these chronically treated patients macrocytosis has been reported in 60 to 74 percent of cases.[4,5] It is suggested that the severity of macrocytosis correlates with the drug dose and that mild elevations in the mean corpuscular volume (MCV) is an acceptable toxicity of effective therapy.

Megaloblastic erythropoiesis also is a common occurrence in renal transplant patients on chronic azathioprine therapy. In a series of 28 patients subjected to marrow aspiration, Wickramasinghe *et al.*[5] showed that only one patient had normoblastic proliferation. In addition, definite megaloblastic changes were seen in patients with normal mean corpuscular volumes. The mechanism by which megaloblastic erythropoiesis occurs in renal allograft recipients without macrocytosis is unknown.

The reversal of methotrexate toxicity with folinic acid is well recognized. Folinic acid bypasses the block in the NAD-dependent reduction of folic acid. It has been postulated that, after its biodegradation to 6-mercaptopurine (6-MP), azathioprine may interfere with NAD-NADH systems. In the majority of cases reviewed, azathioprine-induced megaloblastosis with severe anemia appears to be primarily related to interference with folic acid metabolism. Mowbray *et al*[7] found abnormal histidine loading tests in those patients with macrocytosis, megaloblastosis, and anemia. Dossetor, *et al*[8] described one patient with normal serum vitamin B_{12} and folate activity but decreased red cell folate which was corrected with large doses of vitamin B_{12}. Studies by Cooper and Lowenstein showed that intraerythrocytic folate is derived from serum folate in a vitamin B_{12}-dependent coenzyme step.[9] In our patient pharmacologic doses of vitamin B_{12} and folic acid failed to correct the anemia, macrocytosis, or megaloblastosis; however, the anemia did respond partially to therapeutic dose of folinic acid (Figure 2). The macrocytosis and megaloblastosis were unaffected. These data suggest that the severe anemia associated with azathioprine may be due in part to the inhibition of the conversion of folic acid to folinic acid. The thiopurines also inhibit DNA and RNA syntheses, both early in the de novo synthetic steps and the purine nucleotide interconversion steps.[6] The work of Wickramasinghe *et al.*[5] on the effects of the drug on the cell cycle of the erythron suggest that arrest of the cycle in the S phase is not a fundamental feature of azathioprine-induced megaloblastic erythropoiesis as would be expected from its effect on purine biosynthesis. Using autoradiographic studies of marrow cells, these investigators found that azathioprine caused an increase in G_2 cells in the erythroid precursors either through prolongation of the G_2 phase or arrest of proliferation of the G_2 compartment. While there was a marked increase in the early polychromatophilic erythroblast compartment there was only a slight increase in the proportion of G_2 cells in the promyelocytic-myelocytic stages. These specific effects on the marrow erythroid series are in keeping with our observations and those of others[5] that in contrast to nutritional anemias, i.e., folate deficiency, pernicious anemia, the granulocytes of azathioprine-treated patients show no morphologic abnormalities. This suggests that azathioprine, at immunosuppressive doses, affects the cell cycle of different proliferating cells to different extents. Salser[10] and Malamud[11] and their

coworkers suggested that the megaloblastosis and macrocytosis occur because DNA inhibition is more physiologically significant than RNA synthesis. Thus, although the changes in G_2 compartment are similar to those found in vitamin B_{12} or folic acid deficiency-induced megaloblastosis, azathioprine apparently produces these changes in the red cells by mechanisms other than through the interference of these cofactors, perhaps through inhibition of DNA.

For the clinician caring for patients on azathioprine, observation of the red cell mean corpuscular volume, red cell, and white cell counts are the important indices for detection of toxicity. Removal of the drug, as shown in our case, usually is followed by reversal of the clinical picture to normal. It is to be remembered, however, that macrocytosis and megaloblastosis in the absence of severe anemia should not necessitate discontinuation of the medication.

REFERENCES

1. McGrath BP, Ibels LS, Raik E, *et al:* Erythroid toxicity of azathioprine. *Quart J Med* 44:57-63, 1975.
2. Klippel JH, Decker JL: Relative macrocytosis in cyclophosphamide and azathioprine therapy. *JAMA* 229:180-181, 1974.
3. Greaves MW, Dawber R: Azathioprine in psoriasis. *Brit J Med* 2:237-238, 1970.
4. Kolle G: Knochenmarksschädigung bei immunosuppressives therapie der juvenilen rheumatoiden arthritis und des still-syndroms mit azathioprin. *Deutsche Mediz Wschr* 94:2268-2273, 1969.
5. Wickramasinghe SN, Dodsworth H, Rault RMJ, *et al:* Observations on the incidence and cause of macrocytosis in patients on azathioprine therapy following renal transplantation. *Transpl* 19:443-446, 1974.
6. Elion GB: Biochemistry and pharmacology of purine analogues. *Fed Proc* 26:898-904, 1967.
7. Mowbray JF, Cohen SL, Doak PB, *et al:* Human cadaveric renal transplantation. Report of 20 cases. *Brit Med J* 2:1387-1390, 1965.
8. Dossetor JB, Gault MH, Oliver JA, *et al:* Cadaver renal homotransplants: Initial experiences. *Canad Med Assoc J* 91: 733-742, 1964.
9. Cooper B, Lowenstein LH: Relative folate deficiency of erythrocytes in pernicious anemia and its correction with cyanocobalamin. *Blood* 24:502-521, 1964.
10. Salser JS, Miller DG, Balis ME: Interaction of 6-mercaptopurine with cellular synthesis. *Exptl Mol Pathol* 6:199-212, 1967.
11. Malamud D, Gonzale E, Hua-i C, *et al:* Inhibition of cell proliferation by azathioprine. *Cancer Res* 32:1226-1229, 1972.

Governor's Conference

PREVENTION OF ENVIRONMENTALLY RELATED CANCER
IS NEW JERSEY #1 IN CANCER?

Saturday, May 6, 1978 **8:30 a.m. — Holiday Inn, Atlantic City** **CME Credit Hours — 4**

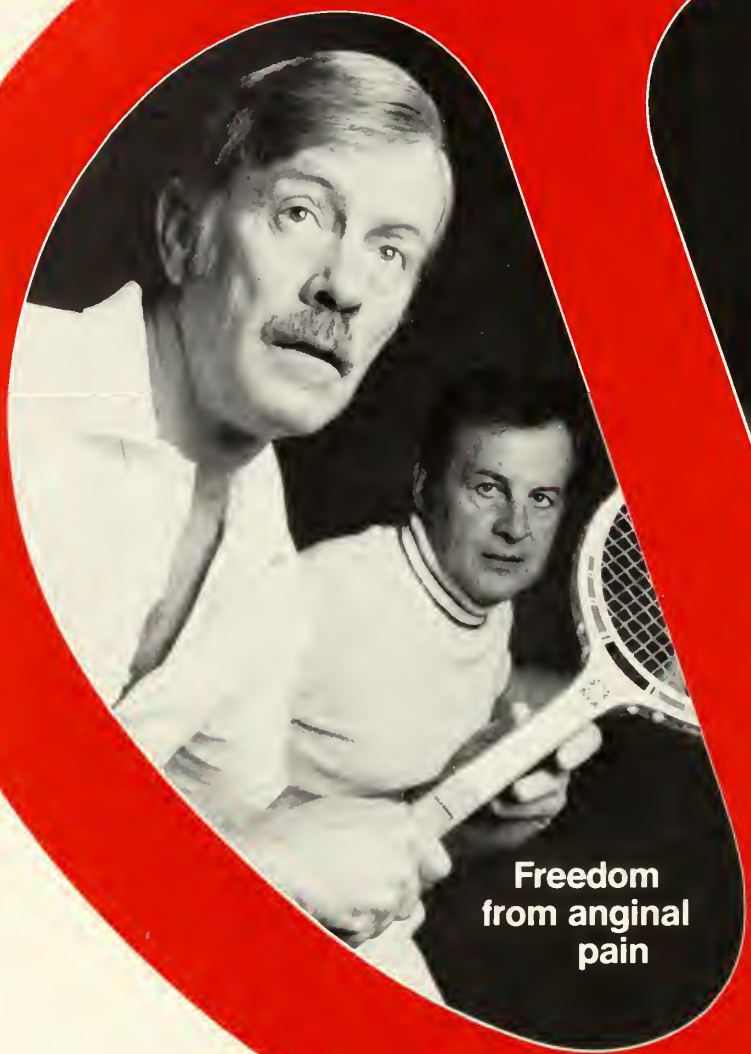
Welcome and Introduction — Frank R. Begen, M.D., President, MSNJ
Keynote Address — Honorable Brendan T. Byrne, Governor of New Jersey
Moderator — Seymour Charles, M.D., Conference Chairman

Part I — Detection of Environmental Cancer Hazards
Epidemiological Methods — Robert Hoover, M.D., Chief Epidemiological Section, NIH, Bethesda, Md.
Experimental Methods — Umberto Saffiotti, M.D., Chief, Cancer Cause and Research, National Cancer Institute, NIH, Bethesda, Md.
Industrial Methods — Charles Reinhardt, M.D., Director, Haskell Laboratory, E.I. duPont & Co., Wilmington, Del.

Part II — Social Responsibility in Cancer Prevention
State Agencies — Peter Preuss, Ph.D., Special Assistant to the Commissioner, New Jersey Environmental Protection Department, Trenton
The National Scene — Hon. Andrew Maguire, Congressman, 7th District, New Jersey
What Physicians Should Be Doing
Role of the Industrial Physician — John Tobin, M.D., Medical Director, American Cyanamid Company, Wayne
The Medical Profession — Frederick B. Cohen, M.D., Director of Oncology, Beth Israel Medical Center, Newark

Round Table Discussion
Press Conference

Angina freedom fighter...



Freedom from anginal pain



Freedom from anginal fear

1. Taken sublingually, Cardilate® (erythrityl tetranitrate) begins to work within 5 minutes, eliminating or reducing frequency and severity of anginal pain for up to two hours.
2. Fear of pain, a major deterrent to achieving acceptable (and desirable) levels of activity, including sex, may be allayed with Cardilate. Effective prophylaxis and improved exercise tolerance help toward normalizing the lives of anginal patients.

Cardilate®
(erythrityl tetranitra

Cardilate® (erythrityl tetranitrate)
INDICATIONS: For the prophylaxis and long-term treatment of patients with frequent or recurrent anginal pain and reduced exercise tolerance associated with angina pectoris, rather than for the treatment of the acute attack of angina pectoris, since its onset is somewhat slower than that of nitroglycerin.

PRECAUTIONS: As with other effective nitrites, some fall in blood pressure may occur with large doses.

Caution should be observed in administering the drug to patients with a history of recent cerebral hemorrhage, because of the vasodilation which occurs in the area. Although therapy permits more normal activity, the patient should not be allowed to misinterpret freedom from anginal attacks as a signal to drop all restrictions.

SIDE EFFECTS: No serious side effects have been reported. In sublingual therapy, a tingling sensation (like that of nitroglycerin) may sometimes be noted at the point of tablet contact with the mucous membrane. If objectionable, this may be mitigated by placing the tablet in the buccal pouch. As with nitroglycerin or other effective nitrites, temporary vascular headache may occur during the first few days of therapy. This can be controlled by temporary dosage reduction in order to allow adjustments of the cerebral hemodynamics to the initial marked cerebral vasodilation. These headaches usually disappear within one week of continuous therapy but may be minimized by the administration of analgesics.

Mild gastrointestinal disturbances occur occasionally with larger doses and may be controlled by reducing the dose temporarily.

HOW SUPPLIED: 10 mg chewable scored tablets, bottle of 100. Also 5, 10 and 15 mg oral/sublingual scored tablets in bottles of 100. 10 mg oral/sublingual scored tablets also supplied in bottles of 1,000.

Also available: Cardilate®-P brand Erythrityl Tetranitrate with Phenobarbital* Tablets (Scored).

(*Warning—may be habit-forming.)



Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

The AMA film library provides a service to you...

The AMA Film Library contains over 200 titles on such subjects as anatomy, embryology, obstetrics, gynecology, pediatrics, radiology, orthopedic surgery, and dermatology. The films are all 16 mm and are available on loan for a small service charge to physicians, medical societies, medical schools, hospitals, and other professional medical groups. A limited number of films on general health education topics are also available to physicians who wish to supplement their programs for lay groups. Free film library catalogs are available from the:

Audio-Visual Self-Learning Department
535 N. Dearborn St.
Chicago, Illinois 60610

For additional information write to James L. Breeling, Director, at the above address or telephone: (312) 751-6566.

NEW YORK FERTILITY RESEARCH FOUNDATION, INC.

For the Investigation of
Problems of Human Infertility

The Institute provides a complete diagnostic and consultation service for infertile couples. Investigations are conducted by well-known specialists in conjunction with consultants in the various fields of medicine related to infertility.

Patients are returned to the referring physician after appropriate studies have been made, together with a complete detailed report of the findings of the Institute and its consultants and recommendations for therapy. Literature on request.

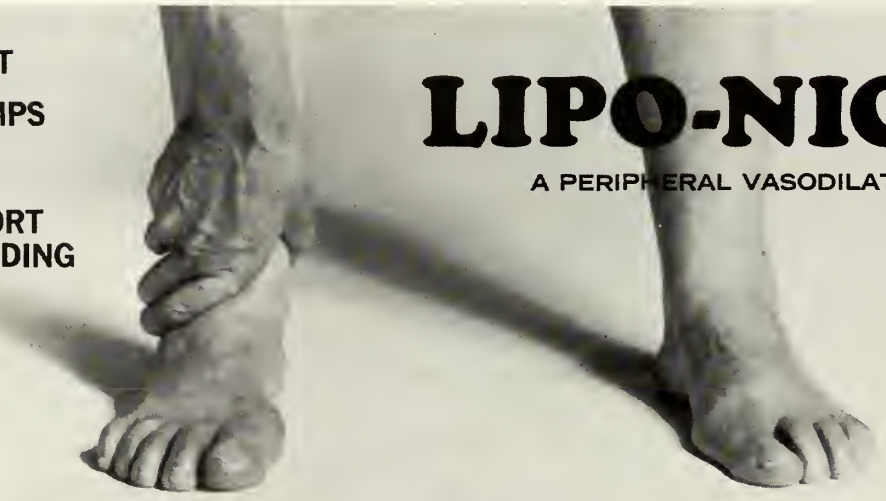
123 East 89th Street, N.Y., N.Y. 10028

Phone: TR 6-9300

COLD FEET
LEG CRAMPS
TINNITUS
DISCOMFORT ON STANDING

LIPO-NICIN

A PERIPHERAL VASODILATOR



IMMEDIATE or GRADUAL

nicotinic acid therapy

IMMEDIATE RELEASE

LIPO-NICIN/100 mg.
Each blue tablet contains:
Nicotinic Acid .....100 mg.
Niacinamide ..... 75 mg.
Ascorbic Acid .....150 mg.
Thiamine HCL (B-1) .. 25 mg.
Riboflavin (B-2) ..... 2 mg.
Pyridoxine HCL (B-6).. 10 mg.
DOSE: 1 to 5 tablets daily.
AVAILABLE: Bottles of 100, 500, 1000.

LIPO-NICIN/250 mg.
Each yellow tablet contains:
Nicotinic Acid .....250 mg.
Niacinemide ..... 75 mg.
Ascorbic Acid .....150 mg.
Thiamine HCL (B-1) .. 25 mg.
Riboflavin (B-2) ..... 2 mg.
Pyridoxine HCL (B-6).. 10 mg.
DOSE: 1 to 3 tablets daily.
AVAILABLE: Bottles of 100, 500, 1000.

GRADUAL RELEASE

LIPO-NICIN/300 mg.
Each time-releese capsule contains:
Nicotinic Acid .....300 mg.
Ascorbic Acid .....150 mg.
Thiamine HCL (H-1) .. 25 mg.
Riboflavin (B-2) ..... 2 mg.
Pyridoxine HCL (B-6).. 10 mg.
In a special base of prolonged therepeutic effect.
DOSE: 1 to 3 tablets daily.
AVAILABLE: Bottles of 100, 500.

Indications: For use as a vasodiletor in the symptoms of cold feet, leg cremps, dizziness, memory loss or tinnitus when associated with impeired peripheral circulation. Also provides concomitant administration of the listed vitamins. The warm tingling flush which mey follow each dose of LIPO-NICIN 100 mg. or 250 mg. is one of the therapeutic effects that often produce psychological benefits to the patient. **Side Effects:** Transient flushing and feeling of wermth seldom require discontinuation of the drug. Transient headeche, itching and tingling, skin rash, allergies and gastric disturbance may occur. **Contraindications:** Patients with known idiosyncrasy to nicotinic acid or other components of the drug. Use with caution in pregnant patients and patients with glaucome, severe diabetes, impaired liver function, peptic ulcers, and arterial bleeding.

BROWN THE BROWN PHARMACEUTICAL CO., INC. 2500 West Sixth Street, Los Angeles, California 90057

Write for Literature and Samples

REFER TO PDR

Tracheo-Innominate Artery Fistula

RALPH J. LEWIS, M.D. and
NILKANTH B. RANADE, M.D.,* New Brunswick

Positive pressure ventilation via a tracheostomy tube can result in numerous complications. The most serious of these is tracheo-innominate artery fistula which has a high mortality. A case report of a 17-year-old female who developed a tracheo-innominate artery fistula is presented. Probable etiology, early detection, and management are discussed. Techniques for prevention are described.

Tracheo-innominate artery fistula following tracheostomy, although still infrequent, is becoming more common. The occurrence of this entity can be traced to the greater utilization of positive pressure ventilator support. Occasional survivors have been reported, however, the outcome usually is fatal.

CASE REPORT

A 17-year-old female lost consciousness following a motor vehicle accident. By the time of admission to the emergency room, she had regained consciousness, but was in severe respiratory distress. An endotracheal tube was inserted immediately and ventilator support instituted.

Examination revealed quadriplegia. The thoracic cage and cardio-respiratory systems were intact. The abdomen was soft and non-tender. All peripheral pulses were present and equal bilaterally. Diagnosis of fracture-dislocation at C_2 and C_3 with anterior displacement was made by x-ray. Spinal cord avulsion was diagnosed. The patient was placed in cervical traction and transferred to the Intensive Care Unit where respirations were controlled by a volume ventilator. Because spontaneous voluntary respiration did not return, a tracheostomy was performed on the third day after admission in preparation for long-term ventilator support. On the eighth day massive bleeding occurred at the tracheostomy stoma. Examination supported the diagnosis of possible tracheo-innominate artery fistula. The patient was sedated with intravenous morphine. A long endotracheal tube with a high pressure balloon was inserted through the oropharynx as the tracheostomy tube was removed. Digital pressure within the tracheostomy stoma controlled any further bleeding. The tracheostomy wound was then packed and the patient was rapidly transferred to the operating room.

Operation – With the patient in cervical traction under general anesthesia, the chest, neck, and left thigh were prepared antiseptically in the usual manner. The chest was entered through a partial sternal splitting incision with extension into the right third intercostal space (Figure 1), and the previous tracheostomy wound was opened and extended transversely to the right side. A marked amount of induration, edema, and erythema was noted in the region of the suspected fistula. The right innominate artery was identified, after appropriate dissection, and controlled proximally and distally.

Further dissection revealed a two cm. defect in the posterior wall of the innominate artery. An intramural hematoma was found. The innominate artery was prepared for grafting by excising the eroded segment and debriding both ends

*Dr. Lewis is Chief of Cardio-Thoracic Surgery, Middlesex General Hospital, New Brunswick, New Jersey and Clinical Assistant Professor of Surgery (Thoracic), Rutgers Medical School, CMDNJ, Piscataway. Dr. Ranade is Third Year Resident in General Surgery, Middlesex General Hospital, New Brunswick, New Jersey. Dr. Lewis may be addressed at 185 Livingston Avenue, New Brunswick 08902.

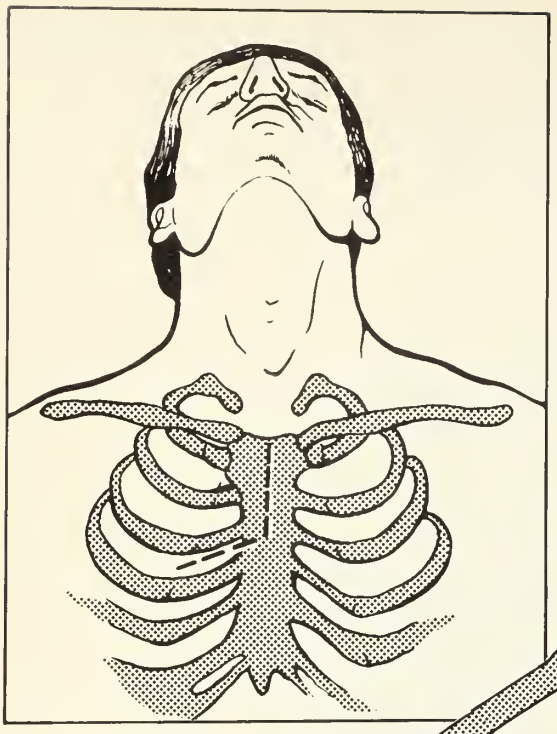


Figure 1 – Sternal incision

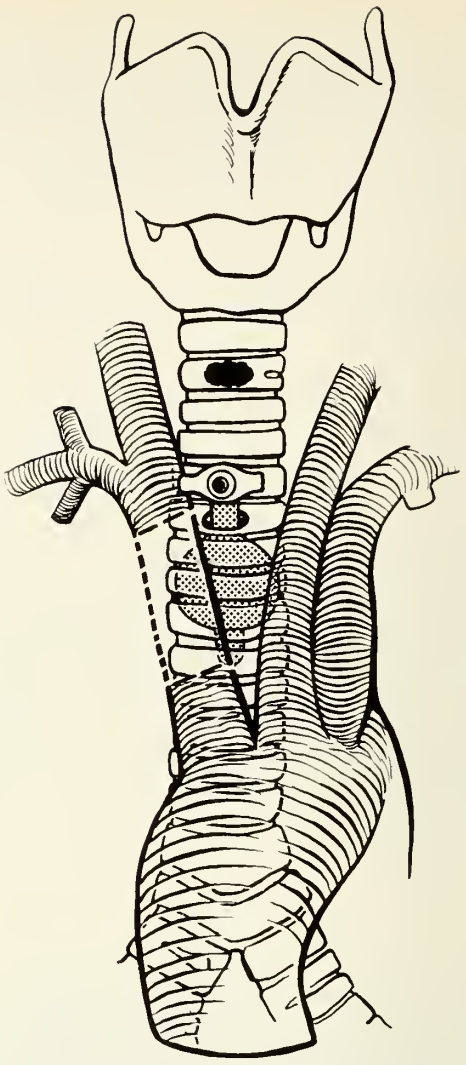


Figure 2 – Low placement of tracheostomy tube causing erosion of innominate artery. Tracheo-innominate artery fistula develops.

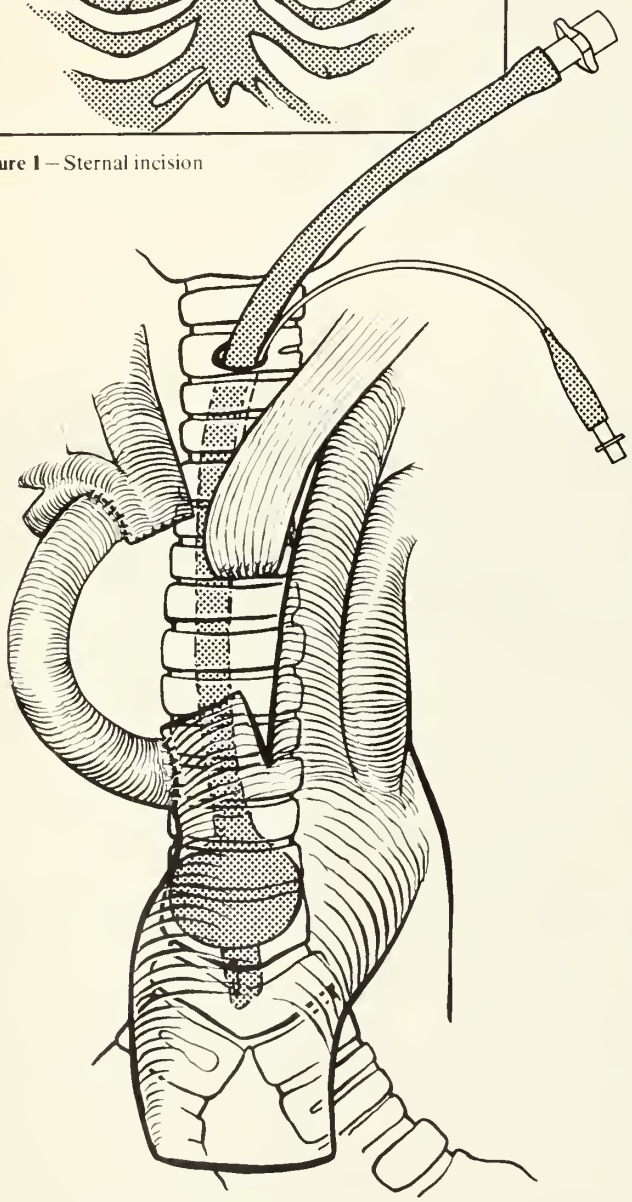


Figure 3 – Venus graft completed and original tracheostomy stoma closed and covered with muscle pedicle. Large endotracheal tube inserted through new proximal tracheostomy stoma with balloon situated below old stoma.

(Figure 2). Because of excellent back bleeding from the distal end of the innominate artery, confirming adequate collateral flow, a temporary bypass shunt from the aorta to the carotid artery was not utilized. A 12cm. long segment of saphenous vein was removed from the left thigh and prepared for grafting. The autogenous graft was anastomosed, between the proximal and distal segments of the innominate artery in a curvilinear manner, so as to avoid the area of the inflamed tracheostomy wound (Figure 3). A second tracheostomy was then performed proximally through which a long endotracheal tube was advanced to a point just above the carina. This allowed the balloon of the endotracheal tube to reside below the first tracheostomy stoma. The first tracheostomy stoma was partially closed and covered with pedicles from the cervical strap muscles. Drains were placed in the neck and mediastinum and the wound was closed in routine fashion. The patient's general condition appeared satisfactory, and she was transferred to the Intensive Care Unit where respirations were controlled by a volume ventilator. The post-operative course was uneventful and no further bleeding occurred from the tracheostomy wound.

On the eighth day following resection of the eroded innominate artery, massive gastrointestinal hemorrhage developed from a stress ulcer. Despite blood transfusions,

massive bleeding continued. The patient and her parents adamantly refused gastrectomy, and she expired on the 10th post-operative day from massive, unrelenting gastrointestinal bleeding secondary to a stress ulcer.

DISCUSSION

The increased incidence of tracheo-innominate artery fistula can be related to the extensive use of cuffed tracheostomy tubes and mechanical ventilators. Fistulization into a major vessel after tracheostomy is caused by pressure necrosis and erosion from a low-lying tracheostomy tube usually placed below the fifth tracheal ring. The mechanism of erosion occurs by either indirect pressure exerted from the tip of the tracheostomy tube abutting against the anterior tracheal wall or direct pressure from the tube lying against the innominate artery. High-pressure balloons as compared to low-pressure balloons have a much greater incidence of tracheal erosion. Additional factors are: (1) Piston-like movement of the tracheostomy tube connected to the ventilator, (2) Use of excessive and continuous cuff pressure, and (3) Infection around the stoma.

DIAGNOSIS AND TREATMENT

Tracheo-innominate artery fistula usually occurs within three weeks following tracheostomy. Hemorrhage from a tracheostomy site, especially when the patient is on a ventilator, is indicative of possible tracheo-innominate artery fistula. Subtle pulsations in the area of the tracheostomy tube can be caused by transmission of aortic pulsations to the trachea and then to the tracheostomy tube. A truly pulsating tracheostomy tube, however, can result from the tube lying in juxtaposition to the innominate artery. This is an ominous sign which can be an early manifestation of an impending tracheo-innominate artery fistula.

When bleeding is massive, the immediate problems are maintenance of the airway and control of bleeding. Since most patients die from asphyxiation because the airway is occluded with blood, immediate oropharyngeal endotracheal intubation, placing the high-pressure balloon below the bleeding fistulous communication, will maintain a patent airway by preventing flooding of the tracheo-bronchial tree. Digital compression of the innominate artery, through the tracheostomy stoma, against the sternum will prevent massive blood loss. Surgical exploration of the anterior mediastinum through a sternal splitting incision should then be carried out as soon as complete control of the bleeding site is achieved. Attempts to manage this lesion by a cervical incision alone can result in a catastrophe. Proximal and distal control of the innominate artery must be accomplished before any extensive dissection can be performed. In most cases, a temporary bypass shunt between the aorta and distal innominate or carotid artery is not necessary. Adequate collateral flow results from the many arterial communications of the subclavian artery and is sufficient to supply the right cerebral hemisphere and prevent cerebral hypoxia. Back bleeding from the distal end of the innominate artery will confirm adequate collateral flow.

If normal blood pressure is not restored to the right arm, claudication or a "steal-like" syndrome possibly could develop with strenuous physical activity of this extremity. Although a permanent graft between the proximal and distal segments of the innominate artery is necessary, it was not essential in this patient who already was paraplegic.

Since this area inherently is infected by an open tracheal wound, foreign bodies are not tolerated; this obviates the use of synthetic prostheses. For this reason saphenous vein was selected and placed anatomically outside the area of gross contamination.

PREVENTION

Prevention of tracheo-innominate artery fistula depends upon:

(1) Use of low-pressure balloon tracheostomy tubes with curvatures less than 90°.
(2) Placement of the tracheostomy stoma at the level of the second or third tracheal cartilages.
(3) Recognition of the possible consequences of a pulsating tracheostomy tube.

A tracheostomy is not a minor surgical procedure; when possible it should be performed in an operating room with adequate light, exposure, and assistance. Low-pressure tracheostomy tubes with cuff pressures of 20mm. Hg should be used, and the cuff should be inflated only enough to permit positive pressure ventilation without an air leak. To reduce the incidence of infection sterile technique with a sterile catheter and gloves is essential each time the trachea is suctioned. A suitable length of corrugated tubing, if interposed between the ventilator and the tracheostomy tube, will dampen the forceful transmission of air and will diminish any piston-like effect the tube might exert on the trachea or innominate artery.

CONCLUSION

Because of the increased use of respirators and cuffed tracheostomy tubes, tracheo-innominate artery fistula is seen more frequently. Proper placement of the tracheostomy tube and utilization of low-pressure balloons might reduce the incidence of this disastrous problem.

Sudden bleeding from a tracheostomy stoma may indicate tracheo-innominate artery fistula. Survival depends upon immediate surgical correction.

REFERENCES

1. Utley J R, Singer M M, Roe B B, Fraser D G, Dedo H H: Definitive management of innominate artery hemorrhage complicating tracheostomy. *JAMA* 220:577-579, 1968.
2. Nunn D B, Sanchez-Salzzar A A, McCullogh J M, Renard A: Tracheo-innominate artery fistula following tracheostomy. *Ann Thorac Surg* 20:689-702.
3. Allen William, Spieker Diane: Fatal hemorrhage from innominate artery and trachea. *Ann Surg* 162:1005, 1965.
4. Reich M R, Rosenkrantz J G: Fistula between innominate artery and trachea. *Arch Surg* 96:401-402, 1968.
5. Weiss J B, Ozment K L, Westbrook K C, Williams G D: Tracheal innominate artery fistula: Successful management of two cases. *So Med J* 69:430-432, 1976.
6. Meyers W O, Lawton B R, Sautter R D: An operation for tracheal-innominate artery fistula. *Arch Surg* 105:268-274, 1972.

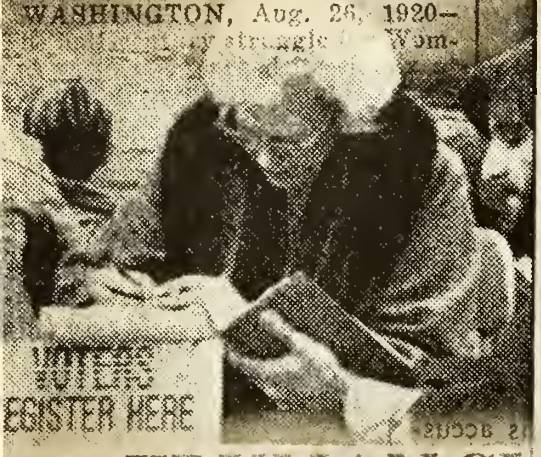
COLBY PROCLAIMS WOMAN SUFFRAGE

Signs Certificate of Ratification at His Home Without Women Witnesses.

MILITANTS VEXED AT PRIVACY.

Wanted Movies of Ceremony, But Both Factions Are

WASHINGTON, Aug. 26, 1920—



Social Security Bill Is Signed, Gives Pensions to Aged, Job

Roosevelt Approves Message Intended to Benefit 30,0 Persons When States Adopt Cooperating Laws–He the Measure 'Cornerstone' of His Economic Progr

WASHINGTON, Aug. 1 The Social Security Bill, p a broad program of unem insurance and old age and counted upon to ben 20,000,000 persons, becam day when it was signed dent Roosevelt in the pr those chiefly responsible ting it through Co[illegible].

Mr. Roosevelt cal[illegible] "the cornerstone [illegible] which is being [illegible] me[illegible]s comple[illegible] ri[illegible] to [illegible]

SENATE APPROVES 18-YEAR OLD VOTE IN ALL ELECTIONS

Amendment to Constitution is Sent to House, Where Passage is Expected

WASHINGTON, March 10, 1971—The Senate approved today, 94 to 0, and sent to [illegible]

TRUMAN CLOSES TED NATIONS CONFEREN ITH PLEA TO TRANSLATE CHARTER INTO DEEDS

NEW WORLD HOPE

President Hails 'Great Instrument of Peace,' Insists It Be Used

HISTORIC LANDMARK

Meeting Gives Standing Ovation as Executive Pictures Peace Gain

"If we fail to use it," he declared to the solemn final meeting of the delegates, 'we shall betray all of those who have died in order that we might meet here in freedom and safety to create it.'

"If we seek to use it selfishly—for the advantage of any one nation or any small group of nations—we shall be equally guilty of that betrayal."

Fervent Interpolation

The President, speaking in the auditorium of the War Memorial Opera House, built in memory of sons of the Golden Gate city who gave their lives in the first World War, in which he himself served, seemed to give unconscious expression to the solemn feeling of the occasion when, at the outset of his speech, he interpolated the words, half a hope, half a prayer:

"Oh, what a great day this can be in history!"

Just before the plenary session the President accompanied the

IGNE

the Draf Ends No

WASHINGTON, Jan. 27, 1973—"With the signing of the peace agreement in Paris today, and after receiving a report from the Secretary of the Army that



PATIENT PACKAGE INSERTS: A CONCEPT WHOSE TIME HAS COME?

The consumer's right to know is an irreversible and desirable trend of the Seventies. It extends, and properly, to a patient's right to know more about his or her prescription medications. One way, gaining favor, is through patient package inserts. Wisely-prepared and properly distributed when medically indicated, they could markedly improve patient knowledge and drug therapy—laudable goals by anyone's standards.

The PMA endorses these goals and will work with government, the health professions and consumers to achieve them.

The Advantages

The concept holds promise of benefits: better patient understanding of the product prescribed, better adherence to the treatment plan, and more awareness of possible side reactions.

Every doctor has had patients who fail to finish antibiotic regimens because they feel better. Some patients assume that if one tranquilizer or analgesic is good, two may be twice as good. Still others fail to report dizziness while on antihypertensive therapy—and so on.

Problems like these might arise less often if the patient received written information in addition to verbal instructions. Some studies suggest that patients are more receptive to such materials, and they more often understand the verbal instructions and follow them, when inserts are used.

The Disadvantages

There are also some potential problems. Obviously, the inserts must be clearly phrased, without extraneous or complex detail. How much information is enough? How can it be kept current? Should all patients receive the same information? Should inserts be included with all drugs? Should only potential problems be listed or are patients better off with a "fair balance" presentation that describes usefulness as well as drawbacks?

These and similar questions require answers, since model inserts have yet to be properly developed and tested. Despite the need for these studies, the FDA is proceeding prematurely with inserts on selected products. We think the Congress is the only place where the matter can be given the proper legal status and direction, particularly since it represents a conceptual change in the legal, medical and social framework of the nation's prescription drug information system.

The Solution

The PMA believes that carefully-devised pilot studies of various kinds of inserts are needed. They should be developed and implemented with full participation by doctors, pharmacists, consumers, communications experts and the drug industry. Such studies will provide reliable pathways to follow, so that inserts will be useful aids to medical practice.

And particularly we think that you should be closely involved in this debate and in these studies and decisions. Otherwise, people with less experience and qualifications may control the purposes, content and use of a tool with considerable promise for improved patient care. It could make a difference in your practice tomorrow, and more importantly, in the health of your patients.

PMA
THE PHARMACEUTICAL MANUFACTURERS ASSOCIATION
1155 FIFTEENTH ST. N. W. WASHINGTON, D. C. 20005

JOIN US.



We can do much more together.

Rx for immediate payment of professional fees.



Thanks to a recent New Jersey law, professionals can now receive immediate payment for services by accepting Master Charge and VISA credit cards, both offered by United Jersey Bank.

Check the benefits:

- Costly bookkeeping and billing expenses will be sharply reduced.
- Immediate deposit credit on either Master Charge or VISA charges. No waiting for payment on personal billing or insurance claim responses.
- Patients will like the added convenience of being able to charge medical and dental expenses to their credit cards.

For more information, please contact Fred Lehmann, Jr., Director of Professional Credit Services, United Jersey Bank, P.O. Box 543, Hackensack, N.J. 07602. (201) 646-5444.

A FULL SERVICE BANK

United Jersey Bank
Member FDIC

547

Pneumatosis Coli: Report of a Successful Therapeutic Approach*

HIKON CHON, M.D.
EDWARD J. PETRELLA, M.D.
JOSEPH F. CENTRONE, M.D., Cherry Hill

Patients who develop pneumatosis coli may have an associated underlying disorder. However, a number of cases are of a benign idiopathic nature. These patients may complain of a variety of symptoms. Oxygen may serve as an effective form of treatment in selected patients.

Pneumatosis intestinalis is a relatively uncommon disorder. It can be idiopathic, an incidental finding, or can be manifestation of various underlying diseases. Pneumatosis of the idiopathic variety in an adult generally involves the colon and is benign. It may spontaneously regress.[11] Until recently, there has been no satisfactory treatment for this condition. In 1973, Forgacs, Simon, *et al.* reported a few cases of pneumatosis intestinalis successfully treated with 70 percent oxygen administered via close-fitting mask.[4]

We wish to report a case of pneumatosis coli successfully treated by oxygen inhalation therapy.

CASE REPORT

A 45-year-old female presented with pneumatosis coli of eight months' duration. One year prior to this admission, the patient experienced diarrhea with blood and mucus. A barium enema examination at the time demonstrated pneumatosis coli involving the sigmoid colon. Sigmoidoscopic examination was normal. Azulfidine® was prescribed with a presumptive diagnosis of granulomatous colitis. There was some relief of the symptoms. She was re-admitted to the hospital a year later with the complaint of bloody diarrhea and vomiting. The physical examination on admission revealed a diffusely tender abdomen with no evidence of rebound tenderness or signs of peritoneal inflammation. Laboratory data on admission included a normal latex fixation test, normal antinuclear factor, and lupus erythematosis preparations. The hemoglobin was 13 gm/dl. Plain x-ray of the abdomen and barium enema examination again showed pneumatosis coli extending to the hepatic flexure (Figure 1). Chest x-ray was normal. Esophageal manometry was compatible with early scleroderma exhibiting waves of mostly reduced amplitude and simultaneous waves. A small intestinal x-ray was normal. Oxygen in 50 percent concentration was administered daily for nine days. Upon completion of the oxygen therapy, a follow-up barium enema examination showed no demonstrable pneumatosis (Figure 2). Following the oxygen therapy, the frequency of the patient's bowel movements decreased considerably and her pain disappeared. She was discharged improved.

DISCUSSION

It is clinically useful to divide the pneumatosis into primary and secondary groups.[1,2,11] Primary or idiopathic pneumatosis comprises approximately 15 percent of patients with pneumatosis and is not associated with other gastrointestinal abnormalities. It is usually limited to the large intestine and is benign.[1] There are numerous underlying disorders associated with secondary pneumatosis.[1] Among them, intestinal obstruction,[3,6] collagen disease,[10] inflam-

*This study is from the West Jersey Hospital, Camden and the Hospital of the University of Pennsylvania, Philadelphia. Dr. Chon may be addressed at 1821 Rolling Lane, Cherry Hill, New Jersey 08003.

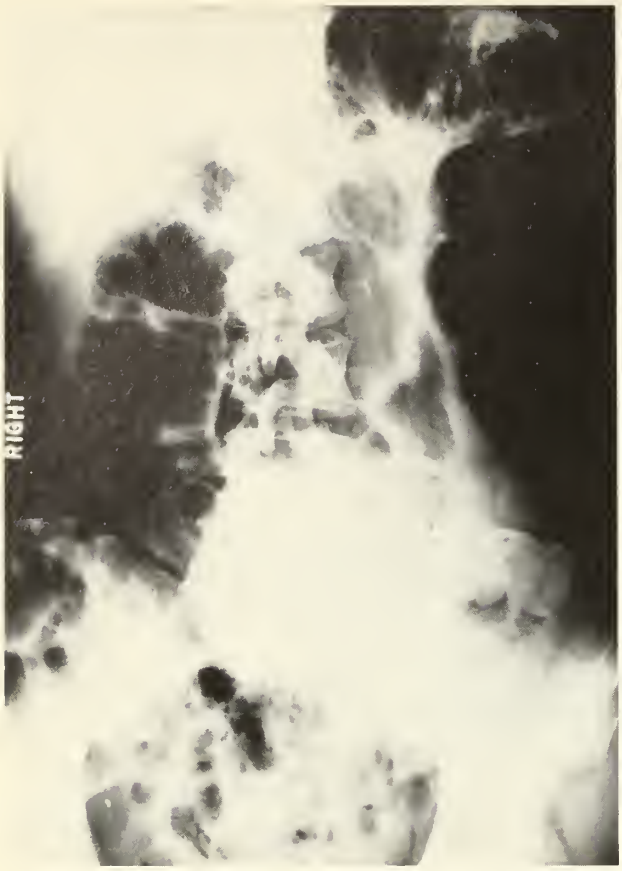


Figure 1—Plain radiograph of the abdomen shows pneumatosis with multiple cystic structures along the transverse colon.



Figure 2—Barium enema examination demonstrates extensive pneumatosis involving sigmoid, descending, and transverse colon.

matory bowel disease, [1,6] pulmonary disease,[5] and trauma[7] are the most common. Pneumatosis has been reported with surgical trauma specifically following jejuno-ileal bypass and after biopsy procedures.[13,14]

The pathophysiology of pneumatosis coli has been discussed elsewhere.[1,4,10,13,14] The mechanical theory is the most acceptable current theory. Differential pressure is the key point in this mechanism. Gas is forced from an area of high pressure to an area of low pressure. This explains air in the wall developing in such diverse conditions as chronic lung disease, obstruction, biopsy, bypass surgery, and inflammatory bowel disease. The primary factor is a differential pressure gradient. Secondary factors allowing lesser gradients to drive gas into the bowel wall include inflammatory change secondary to bacterial chemical, ischemic injury, or trauma. Abnormally high pressures can lead to pneumatosis even with a normal mucosa, and occasionally gas may form in the bowel wall secondary to bacterial action alone.[14]

The radiographic findings of pneumatosis consist of cystic or linear collections of gas within the bowel wall. Pneumoperitoneum may be an associated finding.

The interesting facet of this case is the persistent history of pneumatosis coli and dramatic response to therapy with 50 percent oxygen. Forgacs, *et al.* first reported a case of successful treatment of the pneumatosis with oxygen.[4] He used 70 percent oxygen by head tent for six days and the patient remained asymptomatic for six months. Simon[12] treated four patients with pneumatosis complaining of varying degrees of bloody diarrhea. He used 70 percent oxygen in a close-fitting mask for seven to eight days. Three of four



Figure 3—A follow-up barium enema examination nine days after 50 percent oxygen therapy by mouth shows dramatic disappearance of the pneumatosis, and the colon appears normal.

patients remained asymptomatic for three to six months. One patient developed recurrent pneumatosis six months after oxygen therapy. Forgacs, *et al.*[4] sampled gas contents of a rectal cyst and found it to contain 50 percent hydrogen. The remainder of the gas is assumed to represent mostly nitrogen. They postulated that a gas exchange between a cyst and surrounding tissue would allow the replacement of the non-metabolizable gases with oxygen. This concept is upheld by the results obtained with their patient and the case presented here.

There were no reported cases of oxygen toxicity after treatment. Our patient was placed on 50 percent oxygen for nine days to decrease the risk of the pulmonary complication. Our patient showed no evidence of pulmonary function abnormality with the oxygen therapy. There has been no recurrent pneumatosis and the patient has remained symptom free for one month after completion of therapy. The disappearance of pneumatosis and improvement of gastrointestinal symptoms in these patients suggest that therapeutic intervention may be justified in certain patients with pneumatosis coli.

REFERENCES

1. Bryk D: Unusual causes of small-bowel pneumatosis: Perforated duodenal ulcer and perforated jejunal diverticula. *Radiol* 106:229-302, 1973.

2. Doub HP, Shea JJ: Pneumatosis cystoides intestinalis. *JAMA* 172:1238-1242, 1960.

3. Elliott GB, Elliott KA: The roentgenologic pathology of so-called pneumatosis cystoides intestinalis. *Amer J Roentgen* 89:720-729, 1963.

4. Forgacs P, Wright PH, Wyatt AP: Treatment of intestinal gas cyst by oxygen breathing. *Lancet* 1:579-581, 1973.

5. Keyting WS, McCarver RR, Lovarik JL, Daywitt AL: Pneumatosis intestinalis: New concept. *Radiol* 76:733-741, 1961.

6. Koss LG: Abdominal gas cyst (pneumatosis cystoides intestinorum hominis). An analysis with a report of a case and a critical view of the literature. *Arch Pathol* 53:523-549, 1952.

7. Marshak RH, Blum SD, Eliasoph J: Pneumatosis involving left colon. *JAMA* 161:1626-1628, 1956.

8. Meihoff WE, Hirschfield JS, Kern F: Small intestinal scleroderma with malabsorption and pneumatosis cystoides intestinalis. *JAMA* 204:854-858, 1968.

9. Miercort RD, Merrill FG: Pneumatosis and pseudo-obstruction in scleroderma. *Radiol* 92:359-362, 1969.

10. Mueller CF, Morehead R, Alter AJ, Michener W: Pneumatosis intestinalis in collagen disorders. *Amer J Roentgen* 115:300-305, 1972.

11. Seaman WB, Fleming RJ, Baker DH: Pneumatosis intestinalis of small bowel. *Seminars in Roentgenol.* 1:234-242, 1966.

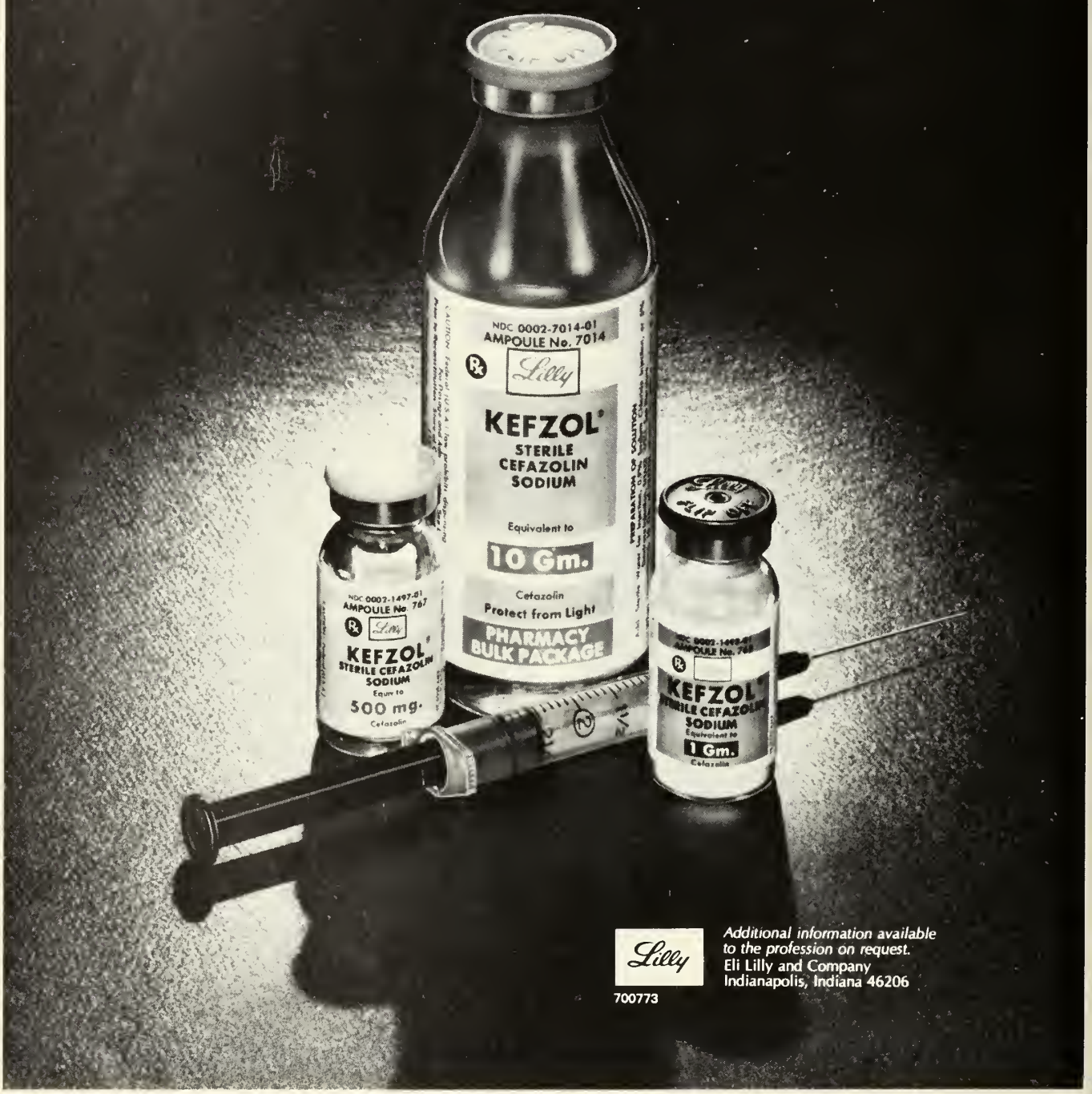
12. Simon NM, Nyman KE, Divertie MB, Rovelstad RA, King JE: Pneumatosis cystoides intestinalis: Treatment with oxygen via close-fitting mask. *JAMA* 231:1354-1356, 1975.

13. Martyak SN, Curtis LE: Pneumatosis intestinalis: A complication of jejuno-ileal bypass. *JAMA* 235:1038-1039, 1976.

14. Wandtue J, Skucas J, Spataro R, Bruneau RJ: Pneumatosis intestinalis as a complication of jejuno-ileal bypass. *Amer J Roentgen* 129:601-604, 1977.

Kefzol® I.M./I.V.
cefazolin sodium

Ampoules, equivalent to 500 mg., 1 Gm., and 10 Gm. of cefazolin



Lilly

Additional information available to the profession on request.
Eli Lilly and Company
Indianapolis, Indiana 46206

700773

Case Presentation

SIDNEY L. ARBEIT, M.D., Jersey City*
IRA L. RUBIN, M.D., New York**

The purpose of this page is to demonstrate to the practicing physician the variety of techniques available to establish a clinical diagnosis in cardiology without the need for the more elaborate and potentially hazardous invasive techniques.

A 45-year-old male was admitted to Montefiore Hospital and Medical Center following a two-hour period of chest pain. Blood pressure was 130/72 mm of Hg, pulse was 75 beats per min and regular, and respiration 18 per minute. The chest pain had cleared. There were no signs of congestive heart failure; there were no murmurs or gallops. (Figure 1 – ECG on admission)

Cardiac enzymes remained normal for the next three days and his ECG showed no serial changes. The patient was kept in CCU at bed rest and was symptom free until six days after admission. At that time he developed severe crushing chest pain associated with marked diaphoresis. Morphine sulfate in dose of 10 mg was given intravenously. He was found to have an increase in pulse rate to 136 beats per min. A diastolic gallop rhythm was present. (Figure 2 – ECG taken at that time)

DISCUSSION

Many patients with acute myocardial infarctions have had recent onset of their angina, progressive increase in the severity of their angina, or periods of sustained pain prior to their major attack. During these periods of protracted pain

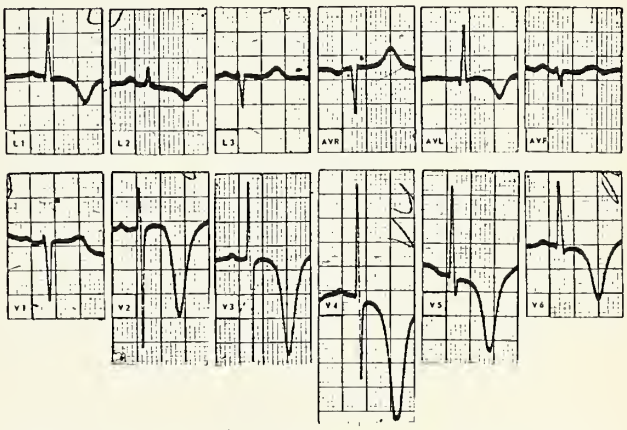


Figure 1 – The rhythm is regular sinus rhythm. The T wave is inverted in AVL, L_1 and L_2 as well as V_2 to V_6. The T waves in the precordial leads are characteristically "coronary" T waves. The descending and ascending limbs are symmetrical. The initial portion of the ST-T is curved and upwardly convex, slightly elevated in AVL and V_2 and slightly depressed in $V_{4\text{-}6}$. These ST and T changes are characteristic of acute myocardial ischemia with or without myocardial infarction. In this patient the absence of a rise in cardiac enzymes confirms the diagnosis of acute coronary insufficiency without myocardial infarction.

*Dr. Arbeit is Associate Clinical Professor of Medicine, New Jersey Medical College, CMDNJ; attending physician and emeritus chief, division of cardiovascular diseases, Jersey City Medical Center; attending physician and chief of cardiology, Jewish Hospital, Jersey City; associate attending physician, division of cardiology, Montefiore Medical Center, Bronx, New York.

**Dr. Rubin is Clinical Professor of Medicine, Einstein College of Medicine, New York; attending physician, division of cardiology, and chief of electrocardiographic service, Montefiore Medical Center, Bronx, New York.

those changes seen in Figure 1 may be present, or the ECG may remain within normal limits. Many patients with such a clinical course and an ECG similar to that seen in Figure 1 may have either clinical or laboratory signs of infarction, or there may be no further ECG changes, or abnormal Q waves may develop as in this case. Others may recover without signs of myocardial infarction with the ECG reverting to or toward normal.

Given this range of possible events that can follow initial, progressive or prolonged anginal chest pain, all of such patients initially must be placed at bed rest and monitored as though they had an acute myocardial infarction. Those with mild pain and no ECG and/or enzyme changes may be ambulated after several days and discharged several days later. Those with ECG changes as seen in Figure 1 best are managed with at least two weeks of hospitalization even if the ECG reverts to normal. Those with associated abnormally elevated cardiac enzymes should be treated as any other patient with an acute myocardial infarction.

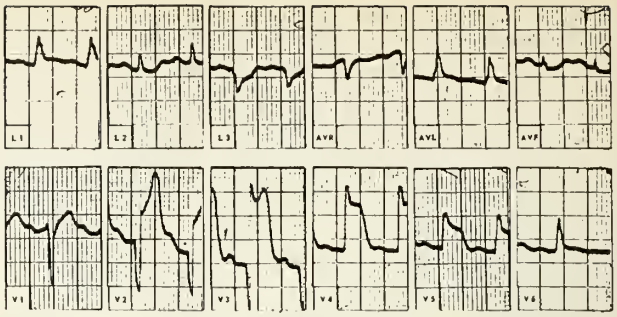


Figure 2—The rhythm is sinus tachycardia. Deep abnormal Q waves are now present in V_2 and V_3 associated with marked ST segment elevation in V_2 through V_5. The diagnosis is acute anterior wall myocardial infarction.

DOCTOR'S NOTEBOOK

Trustees' Minutes February 19, 1978

A regular meeting of the Board of Trustees was held on Sunday, February 19, 1978, at the Executive Offices in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

AMA Leadership Conference ... Directed that a communication be sent to the AMA suggesting that if the AMA Leadership Conference must be held in January when weather conditions may be unfavorable in Chicago, another location be selected; if the meeting must be held in Chicago, it is suggested that it be scheduled for some time other than winter months.

Note: The discussion of this matter came about because President Begen was unable, because of the blizzard, to attend this conference held in Chicago January 26-29.

AMA State Health Legislation Regional Meeting ... Received part one of a report from President Begen on the AMA State Health Legislation Regional Meeting held in Florida, January 5-8.

Ambulatory Health Care Centers ... Directed that requests for assessment of need for National Health Services Corps personnel in any specified area in New Jersey be referred to the Council on Medical Services.

... Directed further that responses to the Cooper Medical Center and an earlier inquiry from the Henry J. Austin Health Center in Trenton should note that these matters have been referred to the Council.

Note: The Henry J. Austin Health Center in Trenton had applied to the NHSC for assignment of physicians to that center. The Mercer County Medical Society felt that there was no demonstrated need for additional health manpower in the Trenton area.

Screening Professional Liability Suits ... Noted that at a meeting of the Committee on Inter-Relations with the Judiciary and Bar in January, a subcommittee was formed to consider a mandatory screening program for all professional liability suits. A report on this committee's deliberations will be made at the next meeting of the Committee on Inter-Relations with the Judiciary and Bar.

New Headquarters Facility ... Approved a required enabling resolution to permit the Executive Director and the administrative staff to consummate the closing on the purchase of the new headquarters facility in Lawrenceville.

Note: Transfer of the deed was accomplished on February 28.

Health Service Administration meetings ... Noted that the New Jersey Foundation for Health Care Evaluation has developed a monitoring and assistance program whereby executive directors of PSROs will act as resource persons and advisors to local physicians on Health Service Administration activities.

... Referred to the Executive Committee consideration of the concept of hiring practicing physicians to attend Health Service Administration meetings.

... Recommended that MSNJ's position to oppose the present procedures and implementation of Public Law 93-641 relating to Health Service Administrations and to work with the AMA to repeal or to amend the present law and support the amendments the AMA proposes to introduce be communicated to New Jersey's Congressmen and to the appropriate federal committees.

Amphetamine Protocol—State Board of Medical Examiners ... Noted that the Executive Director's most recent communication to the State Board of Medical Examiners, pressing the issue of adoption of a valid and reasonable prospective regulation on amphetamines and suggesting that the State Board of Medical Examiners consider designating *The Journal,* MSNJ, as the official publication for such notices, rule proposals, and rule adoptions pertaining to the practice of medicine, had been forwarded to all members of the State Board for their consideration.

CMDNJ ... Received as informative the following report from Dr. Bergen, President of CMDNJ:

1. VA Health Facility—Camden: In the wake of reversal of earlier federal plans to construct a $75 million VA hospital in Camden, on a site adjacent to the College's RMS clinical campus at Cooper Medical Center, and the White House decision instead to support the OMB recommendation for funding of a $12 million outpatient facility only, New Jersey legislators have arranged a meeting with President Carter or his top domestic advisors later this month. Participating will be Camden Mayor Errichetti, Senator Williams, Congressman Florio (a sponsor of the original legislation) and several prominent Camden area businessmen; the State group will try to effect a White House turnaround to support restoration of the full funding. A number of the College's key South Jersey programs have been tied to construction of the major VA facility since the project received a basic go-ahead late in the Ford administration.

2. Submission of Certificate of Need for Program Transfers to Middlesex General Hospital: CMDNJ and Middlesex General continue to take action to implement fully the core-teaching-hospital affiliation agreement; on January 31, the hospital submitted to HSA IV and the State Department of Health a certificate-of-need request which would permit incorporation of eleven

tertiary services now at CMDNJ-Raritan Valley Hospital, or planned for our teaching hospital, into the Middlesex General Hospital program. Seven services new to MGH would be included: cardiac surgery, cardiodynamics, pulmonary medicine, nephrology, endocrinology and metabolic disease, pediatric surgery and pediatric intensive care.

3. Suspension of RVH's Renal Dialysis/Transplantation Service: On January 15, CMDNJ-Raritan Valley Hospital temporarily suspended most of its renal dialysis and transplant program—both slated for eventual reopening at Middlesex General Hospital. Most patients have been enrolled elsewhere, although several acute dialysis patients not previously diagnosed as suffering end-stage renal disease remain under treatment, and consultative services are still offered through the hospital's nephrology department. RVH cited as basis for its action the four-year-old problem of lack of approval of the program for federal reimbursement.

4. Housestaff Contract: In order that you may reflect upon your own careers, below are key provisions of the two-year CMDNJ housestaff contract signed January 17:

(a) Effective July 1, 1977, all pay is raised by five per cent (including also a boost in administrative chief residents' salary supplements from $500/year to $525) to $13,814 for PGY-1 up to $17,954 for PGY-7. Effective January 1, 1978, one-time cash payments of $75/year are provided to officers with continuous service in PGY-2 and who served continuously the year before in PGY-1.

(b) Effective January 1, 1978, a third free meal is added for officers on duty at affiliated hospitals for a period of at least 24 hours on Saturdays, Sundays or holidays, with cash payments of $1.65 to $2.25 available in lieu of the extra meal.

(c) The state's dental-care and eye-care insurance plans are made available to residents.

5. Handicapped Physicians: In response to CMDNJ inquiry, the State Board of Medical Examiners enunciated its position on medical licensure for significantly-handicapped physician graduates, stating that "serious physical impairment will not in and of itself preclude licensure." Cases will be judged individually in the context of the specific disabilities and the functions the individual would be licensed to perform, the Board said.

The College's inquiry was sparked by admissions problems faced increasingly throughout the nation by medical and dental schools confronted with otherwise-prepared candidates who are blind or similarly severely disabled. Discrimination on the basis solely of physical or mental handicap, when the individual's ability to perform "essential" functions is not deterred, is proscribed by the Rehabilitation Act of 1973; the obvious problem is determination of which functions are essential. Newspaper accounts of successful graduation of one such physician seem to have bolstered public sympathy toward such students, without notable attention to professional schools' problems in educating them. AAMC officials, alert to dangers of action either way, have charged American medical school deans with the determination of new admissions criteria to meet this issue.

6. Tuition: The College Board of Trustees, with concurrence from the State Budget Bureau, has decided to maintain present tuition levels for 1978-79 (see trustees actions, below).

7. Public, Environmental, and Occupational Health: In preparation for an expected call for proposals from the Department of Higher Education, the College has activated a task force to develop a draft program paper on these health-care areas. The broad-based working group will cooperate with Rutgers University counterparts to create a five-track program, including study of epidemiology and biostatistics, health-care administration, socio-health sciences, consumer health education, and occupational medicine. The program is envisioned as complementing that expressed in a pending request for federal NIOSH funds to support an occupational-health consortium including Columbia, Mount Sinai and NYU medical schools as well as CMDNJ.

The following is a list of major actions taken in January by the CMDNJ Board of Trustees:

Escrow Funds: The Board approved the use of FY 1977-1978 escrow funds in the amount of $100,000 for a Princeton Medical Center Clerkship and $115,000 to cover the cost of renovations of the interims and other Newark Campus facilities.

Demolition: The Board voided the December 8, 1977 resolution concerning the demolition of the Martland Hospital 1890/1925 buildings and approved a new resolution which increases the cost of the demolition from the previous figure of $972,000 to a revised figure of $1,131,000.

Heart Attack Prevention Program: The Board approved an emergency grant of $10,000 from the Hunterdon Health Fund to support the Heart Attack Prevention Program. This grant was approved for four months only with direction that the principal investigator be informed that no further renewals will be considered.

CMDNJ—New Jersey School of Osteopathic Medicine: President Bergen reported that the American Osteopathic Association has resolved that the CMDNJ-New Jersey School of Osteopathic Medicine may accept a first year class for the academic year 1978/1979 of no more than 28 students.

Tuition: President Bergen reported that no action is intended regarding a change in tuition levels for any units of the College during academic year 1978/1979.

Long Range Plans: The Board passed resolutions approving the long-range plans for CMDNJ-Rutgers Medical School-Raritan Valley Hospital and the CMDNJ-Rutgers Medical School-Institute of Mental Health Sciences for submission to the New Jersey State Department of Health prior to January 31, 1978.

CMDNJ-NJSOM: The Board gave its approval for further review of the position paper concerning the development of the CMDNJ-New Jersey School of Osteopathic Medicine. The Board directed the President informally to present to and discuss this document with the Department of Higher Education to request their suggestions, which will lead to a revised version and become part of the formal presentation to the Board of the College and subsequently to the Board of Higher Education of New Jersey for its consideration.

CMDNJ-RMS Bylaws: The Board passed a resolution approving the Bylaws for the governance of the CMDNJ-

Rutgers Medical School.

Outside Offices: The Board approved outside office locations for Drs. Weiss, Lee, McKeon and Strauchler of the CMDNJ-NJMS Division of Orthopedic Surgery, Department of Surgery; Dr. Danesino of the CMDNJ-NJMS Department of Psychiatry; and Drs. Josimovich and Pinderhughes of the CMDNJ-NJMS Department of Ob/Gyn. These approvals were given with the understanding that they are limited to the period ending June 30, 1978, and that plans will be made toward establishing on-campus offices in the College Hospital as soon as possible. The approvals for Drs. Weiss, Lee, McKeon, and Strauchler include monitoring and professional direction of teaching experience for residents in orthopedics involved in sports medicine activities for various institutions of higher education and public school systems.

CMDNJ—South Jersey Clinical Program . . . Noted, in response to an inquiry from the Camden County Medical Society, that the CMDNJ clinical program for South Jersey will begin in September 1978 with twelve students assigned to the Cooper Medical Center.

Medical Society of New Jersey Student Association . . . Noted that Mr. Leonard Bielory had been elected President of the association and nominated to become the official State liaison.

. . . Approved a request for $550 to send students, from CMDNJ-New Jersey Medical School and from CMDNJ-Rutgers Medical School, to the American Medical Student Association annual meeting in Atlanta, Georgia in March.

. . . Noted that there is increasing interest in medical students to attend the MSNJ Annual Meeting and letters have gone to component societies requesting financial support to send at least one student from their county.

. . . Noted that membership cards are being distributed to members of MSNJSA.

. . . Approved the Bylaws of MSNJSA, which had been reviewed by the Executive Director and Dr. Henry Mineur, with one editorial change—Article IV-Membership: "Membership is available to any medical student of *a* New Jersey medical school with no restrictions as to color, creed, race, or sex." (Italics indicate Board correction.)

Impaired Physicians . . . Approved a recommendation as amended by the Board (indicated by italics) that the following resolution be approved by the Board of Trustees and presented to the House of Delegates in May *in the joint names of the Board and the Committee on Impaired Physicians:*

Whereas, the Impaired Physician Committee of the Medical Society of New Jersey has been formed; and

Whereas, the operative plans of the Committee have been drawn up, modified, and approved by the Board of Trustees; and

Whereas, the first major task of the Committee will be case finding; be it

RESOLVED, that the House of Delegates take steps to disseminate information regarding the existence of the Committee and its non-punitive, therapeutic and advocacy approach to the impaired physician. These steps shall include special communications to each County Medical Society, *the* state and county osteopathic organization, the state and county medical society women's auxiliaries, the New Jersey Hospital Association and each hospital administrator in the State, every licensed M.D. and D.O. in New Jersey, the appropriate state and county nursing and pharmacy organizations, and all other pertinent organizations and individuals. (Italics indicate editorial change.)

Moratorium on Physicians' Fees . . . Received as informative a report from John S. Madara, M.D., MSNJ's representative to the American Hospital Association's annual meeting, where cost containment had been an important issue, and referred his recommendation for a one-year moratorium on increasing physicians' fees, as a means of conveying to the people that physicians are concerned about cost, to the New Jersey Steering Committee on Cost Containment.

Group Health Incorporated . . . Restated its position (JMSNJ 75:258, March 1978) that denial of payment to nonparticipating physicians is arbitrary, unjustified, and discriminatory.

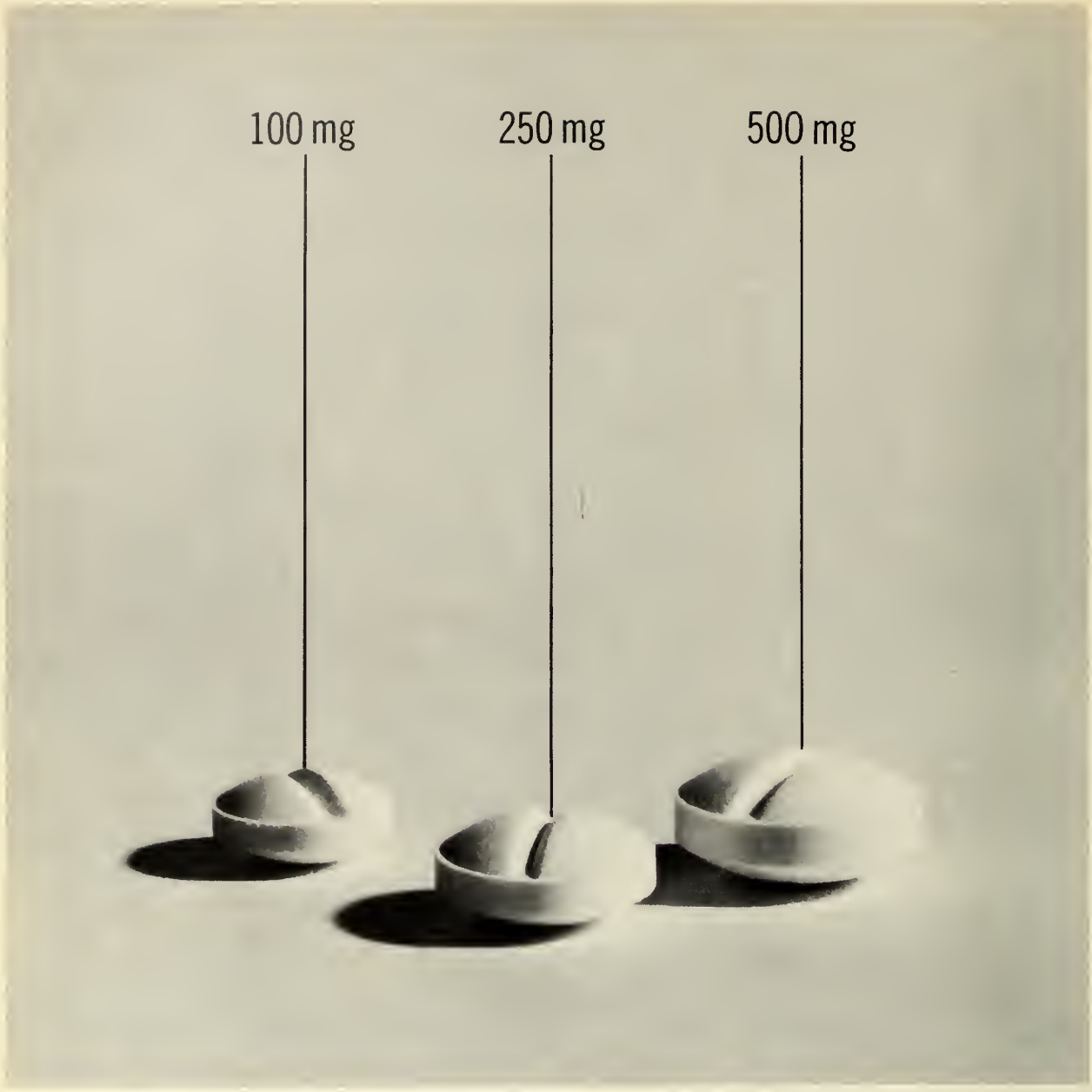
Note: Dr. Todd met with the president of Group Health Incorporated, Dr. George W. Melcher, Jr., to discuss the matter and was advised that the issue concerns government employees. Group Health Incorporated covers civil service employees for health services under the regulation of the Civil Service Commission. Reimbursement procedures are contractually executed.

Investigating Agents from the Department of Health . . . Noted Dr. Madara's mention that agents from the Department of Health, Division of Community Health Services, are appearing unannounced at physicians' offices during patient-visiting hours to determine if the provisions of the Controlled Dangerous Substances Act of New Jersey are being met. This appears to be an infringement on the rights of physicians.

. . . Directed that an item alerting physicians of the procedure to follow when confronted by such investigators be published in the *Membership Newsletter.*

Health Planning and Cost Containment Meeting . . . Approved reimbursement for travel expenses to Washington, D.C. on February 22 for Drs. Rigolosi, Holtzman, and Asbell who will represent the Medical Society at a meeting on the AMA proposals regarding amendments to the Health Planning Law and cost containment.

Request for Endorsement of Grant to New Jersey Department of Education . . . Referred to the Committee on Child Health a request for endorsement from the New Jersey Department of Education of a grant application to the Robert Wood Johnson Foundation to prepare school nurses for the delivery of primary health care in the schools.



Tolinase®
tolazamide, Upjohn

Please contact your Upjohn representative for additional product information.

Upjohn

J-5695-6
© 1977 THE UPJOHN COMPANY

Report of the Nominating Committee

Offices To Be Filled by Election — 1978 Annual Meeting

John S. Madara, M.D., Chairman

Office	Term	Nominee and County
President-Elect	1 year	Alfred A. Alessi, M.D., Bergen
1st Vice-President	1 year	George L. Benz, M.D., Essex
2nd Vice-President	1 year	Augustus L. Baker, Jr., M.D., Morris
Trustees:		
1st District	3 years	Alexander Kovacs, M.D., Union
1st District	3 years	William Greifinger, M.D., Essex
2nd District	3 years	John J. Crosby, M.D., Hudson
2nd District	3 years	Richard E. Lang, M.D., Passaic
3rd District	3 years	Frank Campo, M.D., Mercer
3rd District	3 years	Howard D. Slobodien, M.D., Middlesex
4th District	3 years	John P. Kengeter, M.D., Ocean
Judicial Councilors:		
1st District	3 years	Merton L. Griswold, Jr., M.D., Union
4th District	3 years	Frederick W. Durham, M.D., Camden
AMA Delegates:		
	2 years	George L. Benz, M.D., Essex
	2 years	Karl T. Franzoni, M.D., Mercer
	2 years	Frank J. Hughes, M.D., Camden
	2 years	Emanuel M. Satulsky, M.D., Union
	2 years	Robert E. Verdon, M.D., Bergen
AMA Alternate Delegates:		
	2 years	Henry J. Mineur, M.D., Union
	2 years	Myles Morrison, Jr., M.D., Morris
	2 years	James H. Spillane, M.D., Warren
Delegates and Alternate Delegates to Other States:		
New York:		
Delegate	1 year	Albert F. Moriconi, M.D., Mercer
Alternate	1 year	F. Sterling Brown, M.D., Atlantic
Connecticut:		
Delegate	1 year	Edward M. Coe, M.D., Union
Alternate	1 year	Gastone A. Milano, M.D., Atlantic
Administrative Councils:		
Legislation:		
5th District	3 years	Samuel B. Pole, III, M.D., Cumberland
6th Member	3 years	Peter A. Beaugard, M.D., Bergen
Medical Services:		
5th District	3 years	Armando F. Goracci, M.D., Gloucester
6th Member	3 years	Frank Wolf, M.D., Warren
Mental Health:		
3rd District	3 years	Martin H. Weinberg, M.D., Mercer
6th Member	3 years	Joseph P. Cillo, M.D., Union
Public Health:		
5th District	3 years	Samuel Ingraham, II, M.D., Cape May
6th Member	3 years	Patrick J. McGovern, M.D., Hudson
Public Relations:		
2nd District	3 years	Frank R. Begen, M.D., Bergen
5th District	3 years	Gastone A. Milano, M.D., Atlantic
Standing Committees:		
Annual Meeting	3 years	Arthur C. Dietrick, M.D., Burlington
Finance and Budget	3 years	Harry M. Carnes, M.D., Camden
Medical Defense and Insurance	3 years	E. Arthur Kratzman, M.D., Union
Medical Education	3 years	Edwin W. Messey, M.D., Burlington
Publication	3 years	John F. Marshall, M.D., Mercer
Auxiliary Advisory	3 years	J. James Pegues, M.D., Burlington

JOIN US.



We can do much more together.

AMA
AMERICAN MEDICAL ASSOCIATION

TREAT THE SYMPTOMS IN THE GERIATRIC PATIENT

APATHY • IRRITABILITY
FORGETFULNESS • CONFUSION



Cerebro-Nicin® CAPSULES

A GENTLE CEREBRAL STIMULANT & VASODILATOR FOR GERIATRIC PATIENTS

Each CEREBRO-NICIN® capsule contains:

Pentylenetetrazole	100 mg.
Nicotinic Acid	100 mg.
Ascorbic Acid	100 mg.
Thiamine HCl	25 mg.
l-Glutamic Acid	50 mg.
Niacinamide	5 mg.
Riboflavin	2 mg.
Pyridoxine HCl	3 mg.

AVAILABLE: Bottles 100, 500, 1000

SIDE EFFECTS: Most persons experience a flushing and tingling sensation after taking a higher potency nicotinic acid. As a secondary reaction some will complain of nausea, sweating and abdominal cramps. The reaction is usually transient.

INDICATIONS: As a cerebral stimulant and vasodilator.

RECOMMENDED GERIATRIC DOSAGE: One capsule three times daily adjusted to the individual patient.

WARNING: Overdosage may cause muscle tremor and convulsions.

CONTRAINDICATIONS: Epilepsy or low convulsive threshold.

CAUTION: Federal law prohibits dispensing without prescription. Keep out of reach of children.

Write for literature and samples . . .

BROWN THE BROWN PHARMACEUTICAL CO.
2500 W. 6th St., Los Angeles, Calif. 90057

Report from the Foundation

Daniel J. O'Regan, M.D.
Medical Director

Discussions of the Report of the National Commission on the Cost of Medical Care are going on at many levels. MSNJ's Ad Hoc Committee, under the leadership of Dr. Albright, is studying the 48 recommendations. A report will be submitted to our House of Delegates in May. Several county medical societies have formed committees to address the items on a local level. This is most encouraging, since it shows good physician response to the stimulus. It is important to keep in mind that the Commission Report is *not* an official AMA document. It is not set in bronze. Think of it as a working paper which will be discussed by the AMA House of Delegates in St. Louis.

Obviously, no document containing nearly fifty recommendations can be expected to please all of its readers. It already has accomplished part of its purpose, and that is to heighten awareness of physicians on many approaches to the rising costs of medical care. Many of the issues have been pointed out in this column over the past few years, since NJFHCE has been in a position to deal with proponents of most of the approaches to contain costs. If there is one theme running through the Commission's document, it is that professional ***peer review*** will be essential to most, if not all of them. No matter what phase of the document is studied, it is clear that the voice of the experienced practicing physician is necessary to judge what is good, appropriate, necessary, effective, and desirable for the management of patients, and for the methods used to provide and finance medical services. Quality assurance is the "bottom line"; otherwise, true cost effectiveness cannot be assured. Whether the topic of the moment is PSRO-type review, health planning, access to care, ambulatory services, long-term care facilities, or effective medications and devices, physicians must have a voice in the deliberations. Alternative delivery systems, such as the Individual Practice Association mode of prepaid care, will be truly effective when services of participating physicians are monitored by peer review by their colleagues. Prospective rate-setting systems for hospitals, such as New Jersey's DRG (Diagnosis-Related-Group) arrangements, require physician review of quality of care.

NJFHCE will continue to labor in your behalf, to be sure that the planners and regulators are reminded constantly of the need for physician peer review.

CMDNJ Notes*

Stanley S. Bergen, Jr., M.D.
President

Consumer health education is an educational effort made to help the consumer-patient realize that he is the principal factor that affects his health status. Dr. Bergen has described it as the effort "to inform, educate, and motivate consumers to understand their own health problems and to assume as much responsibility as possible for their own health care."

The education of patients is not new: physicians, nurses, social workers, and dietitians have been doing it for years. But increasing attention is being focused on consumer health education.

The reasons behind this expanded interest are varied. The rise of the consumer movement during the sixties, recent court decisions on requirement for informed consent, increase in the number of malpractice suits, and development of the "Patient's Bill of Rights" (adopted by the American Hospital Association in November 1972) have encouraged patients to ask more questions and expect more information and understanding from health professionals and the health care system than was the case in the past. These events have created a climate of receptivity whereby education for patients and the public is recognized as an essential part of quality care.

The Office of Consumer Health Education (OCHE) at CMDNJ, funded by a grant from the Hunterdon Health Fund, was established in the fall of 1972 to encourage the establishment or upgrading of consumer health education programs in New Jersey community hospitals, to evaluate their effectiveness, and to formulate state and national guidelines for hospitals, physicians, health educators and related personnel. OCHE is also responsible for coordinating a college-wide effort in consumer health education at CMDNJ.

The Office has developed a statewide network of hospital-based consumer health education programs. Nine hospitals, ranging in size from 200 to 2,000 beds, received grants of approximately $24,000 each to develop coordinated patient and community health education programs. The rationale for a hospital-based program and the criteria for hospital selection emphasized the responsibility of health-care institutions in providing patient and community health education.

Through grants and technical assistance, OCHE has fostered the development of comprehensive and effective teaching programs for hospital patients and community groups in New Jersey and elsewhere. Specifically, technical assistance is provided to hospitals, health professionals, and communities in organizational and program development, evaluation, continuing education, and curriculum planning. The Office also offers a statewide information and resource center as a support service to health professionals, organizations and institutions developing health education programs. In addition, OCHE staff members participate in the teaching of consumer health education to medical students.

Health Education Day—During the past two years, by proclamation of Gov. Brendan Byrne, CMDNJ has observed Health Education Day (HED) on May 10th. The observation was initiated in 1976 to celebrate the dedication of CMDNJ Newark Campus. In 1977, CMDNJ's Offices of External Relations and Consumer Health Education carried out a statewide informational and educational program based on the theme, *Think Health—Today and Every Day.*

This year CMDNJ again will mark the anniversary of the Newark campus by observing Health Education Day on May 10th. The theme, *Keep a Healthy Balance,* will emphasize to all residents of New Jersey the importance of establishing sound health habits, so that they may become more involved in their own health care and take greater responsibility for it.

Fifteen thousand resource packets have been mailed to schools, public libraries, pharmacies, hospitals and health institutions, health professional societies, and religious and community organizations inviting them to participate in Health Education Day. We are encouraging these groups to conduct programs, screenings and seminars, arrange displays and exhibit posters on health-related topics. CMDNJ's role is being supported by a grant from the Hunterdon Health Fund.

*This month's column was prepared by Nancy H. Bryant, R.N., M.P.H., Director of the CMDNJ-Office of Consumer Health Education.

A private psychiatric hospital for:

Adolescents

Fair Oaks offers a specialized treatment unit for adolescents. Interpersonal difficulties are addressed through the therapeutic community while individual, group and family therapy focus on internal or long-term conflict and tensions. Certified tutors enable adolescents to continue their studies.

Adults

The adult program offers a variety of treatment methods and specialized units ranging from a therapeutic community which includes individual, group and family therapy to a crisis intervention unit serving those needing close supervision.

Alcohol and Sedative Dependent Persons

The **One Day at a Time Unit** offers treatment to persons dependent on alcohol or sedatives through a 28-day program of physical stabilization, counseling and introduction to continuing supports such as Alcoholics Anonymous.



For further information, write or call:

Fair Oaks HOSPITAL

Administrator. William A. Hawe *Medical Director. William R. Nadel, M.D.*

19 Prospect Street
Summit, New Jersey 07901 201 / 277-0143

Officially Endorsed by *The Medical Society of New Jersey*

a new group major medical program for Doctors

- LOW RATES
- BROAD COVERAGE
- OPEN ENROLLMENT – JUNE

For More Information Contact
Donald F. Smith and Associates

Research Park, 1101 State Road • Princeton, New Jersey 08540 • (609) 924-8700 or (201) 622-6046

Underwritten by New Jersey Blue Cross-Blue Shield.

212th Annual Meeting
May 6-9, 1978

Daily Schedule

Friday
May 5, 1978
3:30 p.m. — Board of Trustees

Saturday
May 6, 1978
8:30 a.m. — Registration Opens
8:30 a.m. — Message Center Opens
8:30 a.m. — Governor's Conference: Identification and Prevention of Environmentally Related Cancer — Is New Jersey #1 in Cancer?
11:30 a.m. — Meeting: New Jersey Committee on Trauma
12 noon — Luncheon: New Jersey Committee on Trauma
12 noon — Golden Merit Award Ceremony
Reception for Award Recipients and Their Families
1:30 p.m. — Annual Spencer T. Snedecor Trauma Oration
2:00 p.m. — Motion Picture Theatre
2:30 p.m. — House of Delegates
4:00 p.m. — Reference Committees: Constitution and Bylaws, "A", "B", "D", "G"
7:00 p.m. — Cozy Morley "Wing-Ding and Bash"
Cocktails, Dinner, Entertainment, Dancing

Sunday
May 7, 1978
7:15 a.m. — 2nd Annual Prayer Breakfast
8:00 a.m. — Registration Opens
8:30 a.m. — Message Center Opens
8:30 a.m. — AMA Issues Workshop
9:00 a.m. — Scientific Sessions:
Allergy
Dermatology
Emergency Medicine
Pediatrics, Family Practice, Medicine, Rheumatism
Radiology, Urology
10:00 a.m. — Motion Picture Theatre
10:00 a.m. — Meeting: New Jersey Academy of Ophthalmology and Otolaryngology
10:00 a.m. — Reference Committees: "C", "E", "F", "H"
12 noon — Luncheons:
New Jersey Dermatologic Society
New Jersey Chapter, American College of Emergency Physicians
New Jersey State Society of Anesthesiologists
New Jersey Academy of Ophthalmology and Otolaryngology
1:00 p.m. — Scientific Sessions:
Anesthesiology, Cardiovascular Diseases, Medicine
Neurosurgery, Neurology
Obstetrics and Gynecology
Ophthalmology, Plastic and Reconstructive Surgery
Psychiatry, Family Practice, Pediatrics
2:00 p.m. — Motion Picture Theatre
3:00 p.m. — House of Delegates
4:30 p.m. — Meeting: Widows and Orphans Society
6:30 p.m. — Inaugural Reception Honoring President-Elect and Mrs. Krueger
8:00 p.m. — Inaugural Dinner

Monday
May 8, 1978
7:00 a.m. — JEMPAC Breakfast
8:30 a.m. — Registration Opens
9:00 a.m. — Message Center Opens
9:00 a.m. — Scientific Sessions:
Chest Diseases, Medicine
Clinical Pathology, Gastroenterology and Proctology, Surgery
Orthopedic Surgery, Family Practice
Otolaryngology
10:00 a.m. — Motion Picture Theatre
12 noon — Luncheons:
New Jersey Chapter, American College of Chest Physicians
New Jersey Academy of Family Practice
New Jersey Orthopaedic Society
New Jersey Society of Physical Medicine and Rehabilitation
1:00 p.m. — Scientific Session on Physical Medicine and Rehabilitation
2:00 p.m. — Motion Picture Theatre
3:00 p.m. — House of Delegates
5:30 p.m. — JEMPAC Wine and Cheese Reception
8:00 p.m. — Annual Dinner-Dance Honoring President and Mrs. Begen

Tuesday
May 9, 1978
7:45 a.m. — Joint Breakfast Meetings:
Bergen and Passaic County Medical Societies
Essex County Medical Society
8:00 a.m. — Special Meeting: Reference Committee "H"
9:00 a.m. — Registration Opens
9:00 a.m. — House of Delegates
12 noon — Registration Closes
2:00 p.m. — JEMPAC Board of Directors Meeting
3:00 p.m. — Board of Trustees
4:30 p.m. — Board of Governors of the Medical Inter-Insurance Exchange of New Jersey — Annual Meeting

212th Annual Meeting
May 6-9, 1978

SCIENTIFIC SESSIONS

The following sessions meet the criteria for the listed number of credit hours in Category I of the Physician's Recognition Award of the American Medical Association.

Saturday, May 6	Credits
Governor's Conference	4
Trauma Oration	1½
Sunday, May 7	
Allergy	2
Anesthesiology, Cardiovascular Diseases, Medicine	2
Dermatology	4½
Emergency Medicine	3
*Family Practice, Medicine, Pediatrics, Rheumatism	3
Neurosurgery, Neurology	2½
Obstetrics and Gynecology	2
Ophthalmology, Plastic and Reconstructive Surgery	2
*Psychiatry, Family Practice, Pediatrics	2
Radiology, Urology	3
Monday, May 8	
Selman A. Waksman Lecture	2
Chest Diseases, Medicine	2½
Clinical Pathology, Gastroenterology and Proctology, Surgery	3½
*Orthopedic Surgery, Family Practice	3
Otolaryngology	3
Physical Medicine and Rehabilitation	2

*Approved also for same number of prescribed credits by the American Academy of Family Physicians

MOTION PICTURE THEATER

The film program is presented through the cooperation of Roche Laboratories, Division of Hoffman-LaRoche, Inc., Nutley. The individual films are offered through the courtesy of the company indicated.

Saturday, May 6

Recurrent Urinary Tract Infections in Older Patients
Burroughs Wellcome

Sunday, May 7

Primary Aldosteronism
Eaton Laboratories

Management of Severe Burns in Children
Eaton Laboratories

Maintaining Nutrition in the Critically Ill Patient
Eaton Laboratories

Hypertension: Treating the Primary Abnormality
Pfizer Laboratories

Catheter Care and Use
Eaton Laboratories

Small-Carrion Penile Prosthesis for Management of Impotence
Eaton Laboratories

Metastasizing Basal Cell Carcinoma
E. R. Squibb and Sons

Immune Capacity in the Newborn
Pfizer Laboratories

Tracheotomy and Cricothyreotomy
Pfizer Laboratories

Monday, May 8

Sex and the Heart Patient
Burroughs Wellcome

Enteral Hyperalimentation: Technique of Intubation
Eaton Laboratories

Maintaining Nutrition in the Critically Ill Patient
Eaton Laboratories

Hypertension: Treating the Primary Abnormality
Pfizer Laboratories

Housing Application

212th Annual Meeting

The Medical Society of New Jersey

May 6–9, 1978

	DAILY RATES		
	Single	Twin	Suites
Holiday Inn	$30	$36	Rates quoted upon
(MSNJ Headquarters)	38	44	request
	46	52	
Howard Johnson's	$30	$36	Rates quoted upon
(Auxiliary Headquarters)	38	44	request
	46	52	

If room is not available at rate requested, next available rate will be assigned

Mail this application directly to the Atlantic City Convention Bureau
16 Central Pier
Atlantic City, N. J. 08401

Please list 1st and 2nd choice; confirmation will come directly from hotel.

1st Choice _____ 2nd Choice _____

Accommodations desired: ☐ Single ☐ Twin ☐ Suite Parlor & 1 Bedroom
☐ Suite Parlor & 2 Bedrooms

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____

Will arrive _____ (DATE) Time _____ Will depart _____ (DATE) Time _____

☐ Check if Official Delegate _____ County

AMA-ERF Student Loan Guarantee Program Continues Valuable Service

The American Medical Association Education and Research Foundation (AMA-ERF) Student Loan Guarantee Program helped over 5,500 medical students and house staff meet education expenses in 1976. During the year, $7.8 million was loaned to 5,055 medical students, 164 interns, and 328 residents. The average loan was $1,408. Both the number of loan recipients and the total amount loaned were substantially higher than in 1975. Since the program's inception in 1962, more than $77 million in loans have been arranged and guaranteed by the AMA-ERF. Physicians and their families (particularly their spouses in the AMA Auxiliary) are the major supporters of the program.

Student Loan Guarantee
Department
535 North Dearborn Street
Chicago, Illinois 60610

For additional information, write to Vincent Strazzabosco, Manager, at the above address or telephone: (312) 751-6250.

Physicians Seeking Location in New Jersey

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly to them.

ALLERGY—Zev M. Munk, M.D., 5505 Cavendish Boulevard, Apt. 504, Montreal, Quebec, Canada H4V2Y6. McGill 1974. Subspecialty, internal medicine. Board certified (IM). Multi-specialty group, partnership, research. Available August 1978.

ANESTHESIOLOGY—Robert Y. Gumnit, M.D., 171-6 Echelon Road, Voorhees 08043. Jefferson Medical College 1975. Board eligible. Group, partnership, solo, or institution. Available July 1978.

Rudraiah Raja Sekhar, M.D., 1627 S. Michigan Avenue, Apt. 305, Villa Park, Illinois 60181. Bangalore (India) 1967. Board eligible. Group, partnership, solo. Available July 1978.

CARDIOLOGY—Jeffrey M. Mitchel, M.D., 240 East Palisades Avenue, Apt. F-7, Englewood 07631. NYU 1974. Subspecialty, internal medicine. Board eligible. Group or partnership with special interest in invasive and non-invasive clinical cardiology practice. Available July 1978.

CARDIOVASCULAR DISEASES—Stephen E. Weinberg, M.D., 663 Cumberland Avenue, Syracuse, New York 13210. Hahnemann 1971. Subspecialty, internal medicine. Board certified (IM). Group, partnership, institution. Available July 1978.

Mohammad S. Choudhry, M.D., 1523 Central Park Avenue, Apt. 16-D, Yonkers, New York 10710. Nishtar (West Pakistan) 1971. Subspecialty, internal medicine. Board certified (IM). Group, solo, or institution. Available July 1978.

Basant K. Khandelwal, M.D., 80-15 41st Avenue, Jackson Heights, New York 11373. JLN Medical College (Ajmer, India) 1971. Subspecialty, internal medicine. Board certified (IM). Any type practice. Available July 1978.

William M. Lieppe, M.D., 1809 Erwin Road, Apt. B., Durham, North Carolina 27705. University of Pennsylvania 1972. Subspecialty, internal medicine. Board certified (IM). Group, partnership, research. Available July 1978.

Bhadresh A. Patel, M.D., 501 North 11th Street, Apt. 307, Philadelphia, Pennsylvania 19141. Baroda Gujarat (India) 1971. Subspecialty, internal medicine. Board certified (IM). Group, or solo. Available July 1978.

John J. Cassel, M.D., 101 Valley Drive, Bolingbrook, Illinois 60439. Jefferson Medical College 1973. Subspecialty, internal medicine. Board certified (IM). Group or partnership. Available July 1978.

DERMATOLOGY—Joseph J. Chanda, M.D., 3525 Charter Place, Ann Arbor, Michigan 48105. Georgetown 1971. Subspecialty, internal medicine. Board eligible (IM). Group, partnership, solo. Available July 1978.

EMERGENCY MEDICINE—Thomas J. Rosko, M.D., Box 1341, Hershey Medical Center, Hershey, Pa. 17033. Penn State 1976. Group or partnership. Available June or July 1978.

FAMILY PRACTICE—Jeffrey C. Oppenheim, M.D., 9 Wilton Street, Princeton 08540. Rutgers (CMDNJ) 1975. Board eligible. Group, partnership, institution. Available September 1978.

Robert M. Pallay, M.D., 38 Deanna Drive, Apt. 99, Somerville 08876. Hadassah (Israel) 1964. Subspecialty, emergency medicine. Board eligible (FP). Partnership, solo, research. Available July 1978.

GENERAL PRACTICE—Gideon C. Zikel, M.D., 4162 North Maryland Avenue, Shorewood, Wisconsin 53211. Subspecialty, internal medicine. Group, institution. Available July 1978.

Douglas A. Howell, M.D., Lyme Road, Hanover, New Hampshire 03755. Temple 1973. Subspecialty, internal medicine. Board certified (IM). Group, research, institution. Available July 1978.

HEMATOLOGY—Brian K. Walker, M.D., 5 St. James Court, Philadelphia, Pennsylvania 19106. Cornell 1973. Subspecialty, internal medicine. Board certified (IM). Institution, research, group. Available July 1978.

Vijaykumar P. Shah, M.D., 636 Brooklyn Avenue, Apt. 2-D, Brooklyn, New York 11203. M.S. University (Baroda, India) 1969. Subspecialty, pathology. Board certified (pathology). Institution, research, group. Available July 1978.

Daniel Katcher, M.D., 1300 Army-Navy Drive, Arlington, Virginia 22202. University of Vermont 1972. Subspecialty, internal medicine. Board Certified (IM). Group, research. Available August 1978.

INTERNAL MEDICINE—Payup Thajchayapong, M.D., 500 Central Avenue, Apt. 308, Union City 07087. Siriraj (Thailand) 1968. Subspecialty, endocrinology. Board certified. Any type practice. Available July 1978.

Ramesh M. Shah, M.D., 4 Park Avenue, Apt. 5-E, New York, New York 10016. Grant Medical (Bombay, India) 1972. Subspecialty, pulmonary diseases. Board certified. Group, partnership, solo, or institution/industrial. Available July 1978.

Richard J. Eatroff, M.D., 1140-7 Kirkbride Road, Voorhees Township 08043. Guadalajara 1972. Subspecialty, gastroenterology. Board certified. Group or partnership. Available July 1978.

Edward B. Biederman, M.D., 6501 Cow Pen Road, Apt. D-210, Miami Lakes, Florida 33014. NYU 1973. Subspecialty, endocrinology. Board certified. Group or partnership. Available July 1978.

Sung H. Ryoo, M.D., 1575 North Avenue, Apt. 18, Bridgeport, Connecticut 06604. Kyungpook (Korea) 1969. Subspecialty, hematology/oncology. Board certified. Group, partnership, solo. Available July 1978.

Robolge A. K. Lenora, M.D., 110 Caton Avenue, Apt. 4-H, Brooklyn, New York 11218. Sri Lanka (Ceylon) 1970. Subspecialty, pulmonary medicine. Board certified. Group, partnership, or hospital-based. Available.

George M. Massoud, M.D., 4300 Alton Road (Mt. Sinai Hospital), Miami Beach, Florida 33140. Baghdad (Iraq) 1971. Board eligible. Any type practice. Available July 1978.

Husman Khan, M.D., 126 Route 46 East, Apt. 36-A, Lodi 07644. S.N. Medical College (Agra, India) 1973. Board eligible. Group or institution. Available July 1978.

Harmohinder S. Gogia, M.D., Bergen Pines Hospital, Ridgewood Avenue, Paramus, New Jersey 07652. Government Medical College (India) 1969. Board eligible. Group, partnership, solo. Available July 1978.

Robert J. Levai, M.D., 32 Lower Overlook Road, Summit 07901. Albany (New York) 1975. Board eligible. Group, partnership. Available July 1978.

Miguel A. Sarriera, M.D., Juan Guell 131-133 104 TA, Barcelona 14, Spain. Barcelona 1960. Board eligible. Any type practice. Available July 1978.

Pillutla V. Sastry, M.D. 501 Sixth Street, Apt. 4-H, Brooklyn, New York 11215. Guntur (India) 1968. Subspecialty, cardiovascular diseases. Board certified. Group, partnership, solo. Available.

Thomas A. Neef, M.D., 367 Hill-n-Dale Drive North, York, Pa. 17403. Georgetown 1975. Board eligible. Group, partnership, solo. Available July 1978.

Jung Hun Lee, M.D., 27800 Mills Avenue, Apt. 103, Euclid, Ohio 44132. Kyungpook (Korea) 1969. Subspecialty, cardiology. Board certified. Group, partnership, solo. Available July 1978.

Narendra C. Bhalodkar, M.D., 86-16 60th Avenue, Apt. 3-L, Elmhurst, New York 11373. Baroda (India) 1971. Subspecialty, cardiology. Board certified. Group, partnership, solo, or hospital based. Available July 1978.

David T. Klein, M.D. 4750 Bedford Avenue, Brooklyn, New York 11235. Brussels 1975. Board eligible. Partnership or group. Available July 1978.

Richard D. Schubert, M.D. 21 Parkman Street, Brookline, Massachusetts 02146. Downstate (NYU) 1975. Subspecialty, rheumatology. Board certified. Group. Available July 1978.

Mohammad H. Al-Asha, M.D., 70 Branchbrook Drive, Belleville 07109. Damascus (Syria) 1972. Subspecialty, gastroenterology. Board certified. Group or partnership. Available July 1978.

Arthur G. Manalo, M.D., 5804 Annapolis Road, #810, Bladensburg, Maryland 20710. University of the East (Philippines) 1972. Board eligible. Solo, partnership, emergency room. Available July 1978.

Edward T. Swibinski, M.D., 352 E. 89th Street, Apt. 1-C, New York, New York 10028. NYU 1975. Board eligible. Group, research, emergency room. Available July 1978.

Alan R. Vinitsky, M.D., 2801 Stanbridge Street, Apt. 212-A, Norristown, Pennsylvania 19401. University of Pennsylvania 1974. Board certified. Group, partnership, institution. Available July 1978.

Myron O. Goldbert, M.D., 3755 Henry Hudson Parkway. Riverdale, New York 10463. Albert Einstein 1971. Subspecialty, gastroenterology. Board certified. Group or partnership, Available July 1978.

Munir A. Hasan, M.D., 80 Palisade Avenue, Apt. 34, Jersey City 07306. Baghdad (Iraq) 1972. Subspecialty, general practice. Board certified. Group or partnership. Available July 1978.

Kevin V. Carey, M.D., 49 Marion Street, Apt. 6-C, Brookline, Massachusetts 02146. NYU 1973. Subspecialty, gastroenterology. Board certified. Group or partnership. Available July 1978.

Najib A. Abdallah, M.D., 12 Meadow Lane, Lenox, Massachusetts 01240. Cairo (Egypt) 1971. Board eligible. Group, solo, institution. Available July 1978.

Young S. Shim, M.D., 1925 Eastchester Road, Apt. 17-A, Bronx, New York 10461. Subspecialty, pulmonary diseases. Board certified. Group or solo. Available July 1978.

Harish Chander, M.D., 42-52 Union Street, Apt. 518, Flushing, New York 11355. New Delhi (India) 1973. Subspecialty, nephrology. Board eligible. Group, partnership. Available July 1978.

Bodinor Thepchatri, M.D., 9000 Harry Hines Boulevard, Dallas, Texas 75235. Chiengmai (Thailand) 1972. Board eligible. Institution, emergency room, partnership, solo. Available July 1978.

Satnam S. Uppal, M.D., 2190 Gateway Terrace, Apt. 307A, Easton, Pennsylvania 18042. Christian Medical College (Ludhiana, India) 1968. Board eligible. Group, partnership, solo. Available July 1978.

Ira Spiler, M.D., 27 Sutherland Road, Brighton, Massachusetts 02146. Einstein 1971. Subspecialty, endocrinology. Board certified (IM). Group, partnership, or geographic (full time). Available July 1978.

Stanley R. Zimmerman, M.D., 350 Lenox Road, Apt. 4-N, Brooklyn, New York 11226. Einstein 1975. Board eligible. Group, partnership. Available July 1978.

Francis C. D'Mello, M.D., 48-30 91st Place, Elmhurst, New York 11378. Grant Medical 1970. Subspecialty, gastroenterology. Board certified. Group, partnership, solo. Available August 1978.

Chandra Nouli, M.D., 2441 Webb Avenue, Apt. 1-E, Bronx, New York 10468. Gandhi (India) 1968. Subspecialty, pulmonary medicine. Board eligible. Solo or hospital-based. Available July 1978.

Rustom F. Damania, M.D. 108 Oak Street, Ridgewood 07450. Poona (India). Subspecialty, pulmonary medicine. Board eligible. Group, partnership, solo, industrial. Available July 1978.

Ramesh R. Karia, M.D., 2431 Webb Avenue, Apt. 9-E, Bronx, New York 10468. L.T.M.M. (India) 1971. Subspecialty, hematology/oncology. Board certified. Group, partnership, solo. Available July 1978.

Mahesh R. Desai, M.D., 225 Vandalia Avenue, Apt. 19-G, Brooklyn, New York 11339. NHL Medical College (India). Subspecialty, gastroenterology. Board certified. Group, partnership, solo, hospital based. Available.

Ram Krishna Reddy, M.D., 280 Henderson Street, Apt. 16-0, Jersey City 07302. Gandhi (India) 1963. Subspecialty, gastroenterology. Solo, group, partnership. Available July 1978.

Khaleeq U. Arshed, M.D., 420 East 102nd Street, Apt. 13-G, New York, New York 10029. Nishtar (Pakistan). Board eligible. Solo, partnership. Available July 1978.

Mark A. Kaplan, M.D., 523 East 14th Street, New York, New York 10009. Chicago 1974. Board eligible. Group or partnership. Available July 1978.

NEPHROLOGY – Gwang O. Kim, M.D., 2233 Foxbourne Road, Apt. 8, Toledo, Ohio 43614. Yonsei (Korea) 1969. Subspecialty, internal medicine. Board eligible (IM). Group, partnership, solo. Available July 1978.

Ralph J. Caruana, M.D., 2556 Alderney Lane, Winston-Salem, North Carolina 27103. Tufts 1974. Subspecialty, internal medicine. Board eligible (IM). Group, research. Available July 1978.

NEUROLOGY – Richard F. Tonzola, M.D., 18 Park Road, Belmont, Massachusetts 02178. CMDNJ 1973. Board eligible. Group, partnership. Available July 1978.

Jan Jerry Golnick, M.D., 4 Park Avenue, Apt. 8-E, New York, New York 10016. Silesian (Poland) 1967. Board eligible. Group, partnership, hospital. Available July 1978.

OBSTETRICS/GYNECOLOGY – Shyue-Yi Chang, M.D., 10 North Woodington Road, Apt. B-9, Baltimore, Maryland 21229. Kaohsiung (Taiwan) 1971. Board eligible. Group, partnership, solo. Available July 1978.

Emmanuel A. Atiemo, M.D., 155 East Hartsdale Avenue, Hartsdale, New York 10530. University of Ghana 1970. Board eligible. Group, partnership, solo. Available July 1978.

Ajay K. Maitra, M.D., 8432 East Jefferson, Apt. 311, Detroit, Michigan 48214. Calcutta 1963. Subspecialty, oncology. Board eligible. Partnership, solo, or institution. Available July 1978.

Lloyd A. Prezant, M.D., 83-48 Charlecote Ridge, Jamaica Estates, New York 11432. Guadalajara 1973. Board eligible. Group or partnership. Available July 1978.

Pedro H. Ramirez, M.D., 543-01 Regis Ct., Salem Harbour, Grant Avenue and State Road, Andalusia, Pennsylvania 19020. San Marcos (Peru) 1969. Board eligible. Group, partnership, or solo. Available July 1978.

Jon R. Snyder, M.D., 3214 Orion Circle, Rome, New York 13440. NYU 1972. Board eligible. Group or partnership. Available July 1978.

Diana Barrows, M.D., 100-A Phelps Avenue, New Brunswick 08901. University of California (Irvine) 1973. Board eligible. Any type practice. Available August 1978.

Javad J. Jamshidi, M.D., 5555 Wissahickon Avenue, Apt. 1012, Philadelphia, Pennsylvania 19144. Meshed (Iran) 1965. Board certified. Group, partnership, solo. Available July 1978.

Seetha Devi Sureddi, M.D., 318 East 15th Street, Apt. 8-F, New York, New York 10003. Guntur (India) 1968. Any type practice. Available July 1978.

Parimal S. Bhayani, M.D., 1275 Rock Avenue, Apt. KK-7, North Plainfield 07060. Bombay 1969. Board eligible. Group, partnership, solo. Available.

OPHTHALMOLOGY – Andrew Zorbis, M.D., 5700 Arlington Avenue, Bronx, New York 10471. Downstate 1973. Board eligible. Group, partnership, solo. Available July 1978.

Alan N. Kohn, M.D., 305 East 86th Street, Apt. 20-N, New York, New York 10028. Washington (Missouri) 1973. Board eligible. Group, partnership, solo. Available July 1978.

Edward A. Gluck, M.D., 70-20 108th Street, Forest Hills, New York 11375. Tufts 1974. Group, partnership, solo. Available July 1978.

OTOLARYNGOLOGY – Ramesh J. Patel, M.D., 316 South 6th Street, Mattoon, Illinois 61938. Baroda (India) 1966. Board eligible. Group, partnership, solo. Available March 1978.

PATHOLOGY – Chuang-Shian Kiang, M.D., 91-30 50th Avenue, Elmhurst, New York 11373. National Taiwan 1972. Board eligible. Group, partnership, institution. Available July 1978.

John Elias, M.D., 3450-26R Wayne Avenue, Bronx, New York 10467. St. Andrew's (Scotland) 1973. Subspecialty, clinical pathology. Board eligible. Group, partnership, institution. Available July 1978.

Anthony W. Hu, M.D., 770 Anderson Avenue, Apt. 9-M, Cliffside Park 07010. Chung-Shan (China) 1969. Special interest – blood bank. Board certified. Group, partnership, institution. Available July 1978.

Firozali K. Panjvani, M.D., 38 Oak Avenue, Apt. 34, Worcester, Massachusetts 01605. Makerere (Uganda). Any type practice. Available July 1978.

Neena Mirani, M.D., 141 Old Short Hills Road, Apt. 46, Bldg. 4, West Orange 07052. T.N. Medical College (India) 1971. Board eligible. Hospital. Available July 1978.

PEDIATRICS – Mark D. Simms, M.D., 2200 Benjamin Franklin Parkway, Apt. W-308, Philadelphia, Pennsylvania 19130. SUNY (Upstate) 1974. Board eligible. Group, partnership, solo, research, institution. Available July 1978.

David R. Croughan, M.D., 209 Tuscan Road, Maplewood 07040. Guadalajara 1973. Board eligible. Group, solo, emergency room, hospital-based. Available.

Rao B. K. Potluri, M.D., 2225 Canary Drive, Rockford, illinois 61103. Sri Venkateswara (India) 1972. Board eligible. Group, partnership, institution. Available July 1978.

Aditya Kaul, M.D., 53 Garden Court, Eggertsville, New York 14226. M. Azad (India) 1971. Board eligible. Group, research, institution. Available July 1978.

Vege Ramakrishna Rao, M.D., 3 Marshal Street, Apt. 8-K, Irvington 07111. Guntur (India) 1970. Board eligible. Group, partnership, industrial. Available July 1978.

Talmor Hanoch, M.D., c/o The Field Clinic, Centreville, Mississippi 39631.

Hadassah (Israel) 1974. Board eligible. Group, partnership. Available March 1978.

Rayasam V. Prasad, M.D., 75 Delafield Street, Apt. G, New Brunswick 08901. S.V. Medical College (India) 1971. Subspecialty, infectious diseases. Board eligible. Partnership, solo, institution. Available July 1978.

Igbal A. Memon, M.D., 720 S. Wolcott, Box 911 KMH, Chicago, Illinois 60612. Dow (Karachi, Pakistan) 1973. Board eligible. Group, institution. Available July 1978.

Leo P. Pajarillo, M.D., 2503 A Atlas Drive, Rome, New York 13440. Cebu Institute (Philippines) 1968. Board eligible. Partnership, solo, institution. Available July 1978.

Pairoj Ruktanonchai, M.D., 27 Blessing Road, Slingerlands, New York 12159. Ramathibodi (Thailand) 1972. Subspecialty, pediatric cardiology. Board eligible. Group, partnership, institution. Available July 1978.

Nihal S. Nagahawatte, M.D., 210 B. Davey Street, Bloomfield 07003. Sri Lanka (Ceylon) 1969. Board eligible. Group, partnership, hospital, emergency room, associate. Available July 1978.

Kanai L. Das, M.D., 89-21 153rd Street, Jamaica, New York 11432. Trivandrum (India) 1963. Board eligible. Group, partnership, solo. Available.

Nirmala Panda, M.D., 501 Sixth Street, Apt. 8-E, Brooklyn, New York 11215. Christian Medical College (India) 1965. Board eligible. Group, partnership, hospital. Available July 1978.

PSYCHIATRY—Mahasukh H. Shah, M.D., 211 S. Millvale Avenue, Apt. #6, Pittsburgh, Pennsylvania 15224. T.N. Medical (India) 1959. Board eligible. Group, partnership. Available July 1978.

R. Shah Jyoti, M.D., 4 Park Avenue, Apt. 5-E, New York, New York 10016. M. P. Shah (India) 1973. Board eligible. Group or institution. Available July 1978.

S. A. M. Kazmi, M.D., 600 Gresham Drive, Apt. 104, Norfolk, Virginia 23507. King Edward (Pakistan) 1974. Board eligible. Group, partnership, solo, or institutional. Available July 1978.

PULMONARY DISEASES—Ming Sung Chiu, M.D., 415 S. Wesley, Apt. 44, Oak Park, Illinois 60302. Taipei (Taiwan) 1969. Subspecialty, internal medicine. Board certified (IM). Group, partnership, solo, institution. Available July 1978.

Mark Pomerans, M.D., Cherry Hospital, Goldsboro, North Carolina 27530. Montevideo (Uruguay) 1964. Subspecialty, psychiatry. Institution. Available April 1978.

Norman H. Braslow, M.D., 8005 Hendrix N.E., Apt. 622, Albuquerque, New Mexico 87109. Jefferson 1973. Subspecialty, internal medicine. Board certified (IM). Group, partnership, institution. Available July 1978.

RADIOLOGY—Michael M. Katz, M.D., 6713 Spring Grove Court, Middleton, Wisconsin 53562. University of Pennsylvania 1973. Subspecialty, diagnostic radiology. Board eligible. Group, institution. Available July 1978.

Vijaykumar Hiremath, M.D., 1650-15 Selwyn Avenue, Bronx, New York 10457. Jawaharlal Nehru (India) 1970. Subspecialty, diagnostic radiology. Board eligible. Group, partnership, institution. Available July 1978.

Subramaniam N. Subramaniam, M.D., 141 Palisade Avenue, Apt. 9, Jersey City 07306. Topiwala (Bombay, India) 1963. Board eligible. Group, partnership, institution. Available July 1978.

Shirish L. Parikh, M.D., 185 Palmdale Drive, Apt. #8, Williamsville, New York 14221. LTM Medical (India) 1971. Subspecialty, nuclear medicine. Board eligible. Group, partnership, solo, institution, academic. Available July 1978.

RHEUMATOLOGY—Richard D. Schubert, M.D., 21 Parkman Street, Brookline, Massachusetts 02146. Downstate 1972. Subspecialty, internal medicine. Board certified (IM). Group, partnership, institution. Available June 1978.

Steven L. Feldman, M.D., 2025 E. 53rd Place, Brooklyn, New York 11234. Downstate 1971. Subspecialty, internal medicine. Board certified (IM). Group or partnership. Available July 1978.

SURGERY, GENERAL—Simon B. Santos, M.D., 8720 Chestnut Circle, Apt. #4, Kansas City, Missouri 64131. Santo Domingo 1970. Board eligible. Group or partnership. Available July 1978.

Michael H. Wimsatt, M.D., 21 Maplewood Terrace, Portsmouth, New Hampshire 03801. Rochester 1971. Board eligible. Group, partnership, or solo. Available July 1978.

Howard F. Floch, M.D., 255 East 23rd Street, New York, New York 10010. Hahnemann 1972. Board eligible. Group, partnership, research. Available July 1978.

Gladstone Errol King, M.D., 3205 Tennessee Street, Pine Bluff, Arkansas 71601. University of West Indies 1966. Board certified. Group, partnership, institution. Available July 1978.

Ashok K. Sahai, M.D., 5058 Broadway, Apt. 10, Cleveland, Ohio 44127. SN Medical College (India) 1968. Subspecialty, general practice. Board eligible. Any type practice. Available July 1978.

Amarkanth R. Saxena, M.D., 903 S. Ashland, Apt. 802B, Chicago, Illinois 60607. Gandhi (India) 1964. Subspecialty, cardiovascular surgery. Board certified. Group, partnership. Available July 1978.

Friedrich Dutka, M.D., 3737 Beaubien Boulevard, Detroit, Michigan 48201. University of Vienna 1965. Subspecialty, thoracic surgery. Board certified. Group, research, institution. Available.

Rao Sureddi, M.D., 318 East 15th Street, Apt. 8-F, New York, New York 10003. Andhra (India) 1965. Board eligible. Any type practice. Available July 1978.

Carlos A. Medina, M.D., 787 Chambord Circle, Marion, Ohio 43302. National University, Colombia (South America) 1971. Special interest in emergency medicine. Hospital contract, group, or solo. Available July 1978.

Samir N. Guergawi, M.D., 101 Fairway Boulevard, Riverview, New Brunswick, Canada E1B 1T4. Cairo 1949. Group, partnership, or solo. Available July 1978.

Shahid H. Hashmi, M.D., 5214 Lancelot Lane, N.W., Roanoke, Virginia 24019. King Edward (Pakistan). Board eligible. Solo, partnership. Available.

B. M. Shivashankar, M.D., 32 Deanna Drive, Apt. 77, South Somerville 08876. Mysore (India) 1969. Special interest in colon and rectal surgery. Board eligible. Group, partnership, solo. Available May 1978.

Ramesh P. Shah, M.D., 3305 Broeck Pointe Court, Louisville, Kentucky 40222. Seth G.S. (India). Board eligible. Any type practice. Available.

SURGERY, ORTHOPEDIC—Jatinkumar D. Gandhi, M.D., 9601 Ashton Road, Apt. I-9, Philadelphia, Pennsylvania 19114. M.P. Shah (India) 1967. Board eligible. Group, partnership, research. Available July 1978.

Edwin J. Lowd, M.D., MOQ 3057, Camp Lejeune, North Carolina 28542. Meharry 1969. Board eligible. Partnership, group, or solo. Available August 1978.

SURGERY, UROLOGICAL—Bashiruddin N. Shaikh, M.D., 66 Pacific Avenue, Apt. 614, Toronto M6P 2P4, Ontario, Canada. B. J. Medical (India) 1961. Board eligible. Group, partnership, research, solo. Available April 1978.

Subbarao V. Cherukuri, M.D., 4649 Walford Road, Apt. 20, Warrensville Heights, Ohio 44128. Andhra (India) 1966. Board eligible. Group or partnership. Available July 1978.

Rene P. Grabato, M.D., 94 Amity Street, Apt. 3-F, Brooklyn, New York 11201. Santo Tomas (Philippines) 1970. Board eligible. Group, partnership, solo. Available July 1978.

Preston G. Packer, M.D., 23-09 215th Street, Bayside, New York 11360. Chicago Medical 1970. Board eligible. Group or partnership. Available July 1978.

David I. Millstein, M.D. 523 Nassau Street, Baltimore, Maryland 21208. Pittsburgh 1970. Board eligible. Group or partnership. Available July 1978.

Narendra K. Bansal, M.D., 4755 Village Lane, Toledo, Ohio 43614. S.N. Medical College (India) 1967. Board eligible. Group or partnership. Available July 1978.

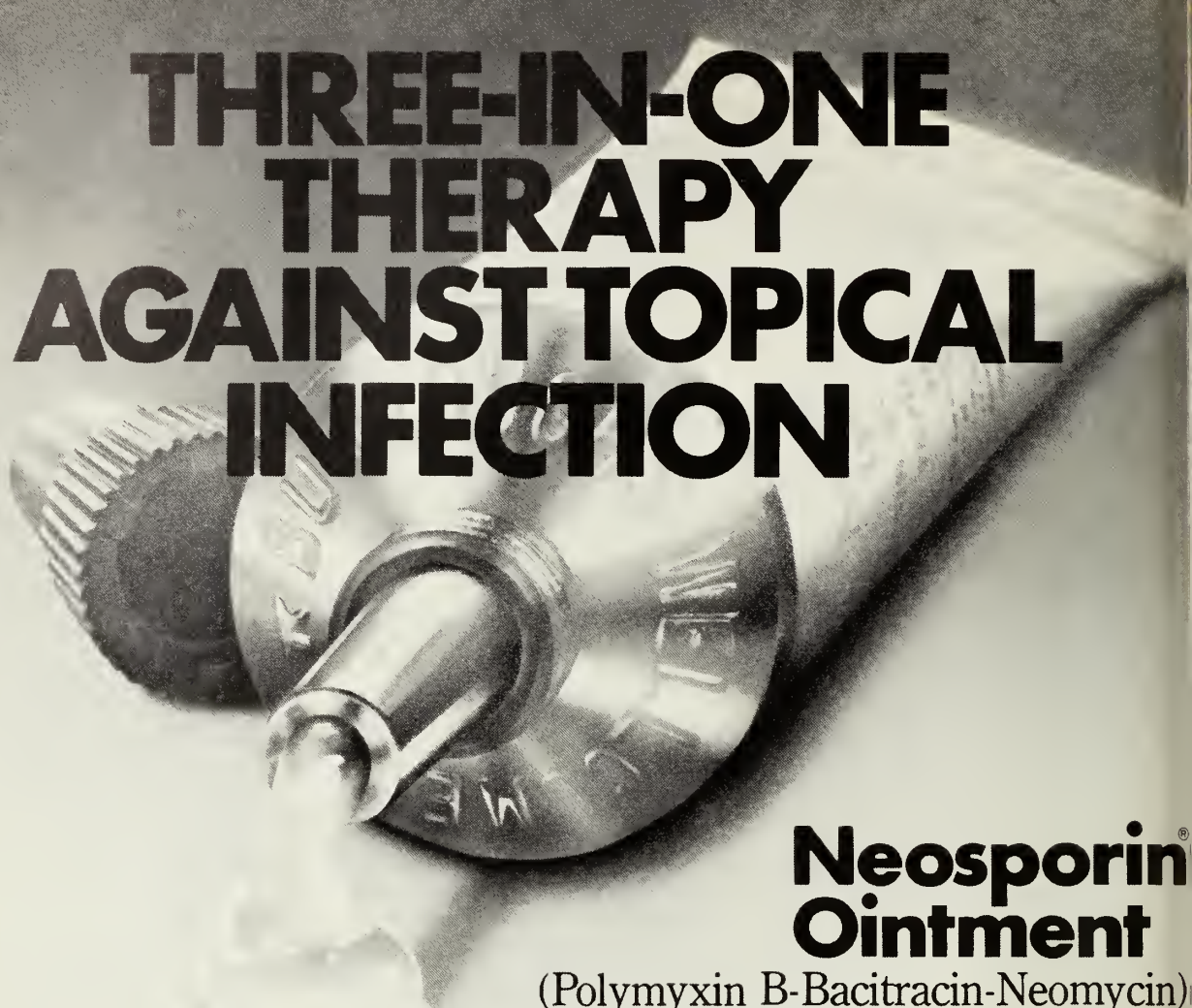
UROLOGY—Baikunth N. Bhargava, M.D., 353 East 17th Street, Apt. 21-C, New York, New York 10003. S.M.S. Medical College (India) 1963. Group, partnership. Available July 1978.

Baikunth N. Bhargava, M.D., 353 East 17th Street, Apt. 21-C, New York, New York 10003. S.M.S. Medical College (India) 1963. Group, partnership. Available July 1978.

Malcolm Schwartz, M.D., 20 Waterside Plaza, Apt. 24-F, New York, New York 10010. CMDNJ 1972. Board eligible. Group, partnership, solo. Available June 1978.

Steven H. Paletsky, M.D., 126 C Remington Avenue, Syracuse, New York 13210. South Carolina. Board eligible. Group, partnership, associate, solo. Available January 1979.

THREE-IN-ONE THERAPY AGAINST TOPICAL INFECTION



Neosporin® Ointment

(Polymyxin B-Bacitracin-Neomycin)

This potent broad-spectrum antibacterial provides overlapping action to help combat infection caused by common susceptible pathogens (including staph and strep). The petrolatum base is gently occlusive, protective and enhances spreading.

Neomycin

Staphylococcus
Haemophilus
Klebsiella
Aerobacter
Escherichia
Proteus
Corynebacterium
Streptococcus
Pneumococcus

Bacitracin

Staphylococcus
Corynebacterium
Streptococcus
Pneumococcus

Polymyxin B

Pseudomonas
Haemophilus
Klebsiella
Aerobacter
Escherichia

In vitro overlapping antibacterial action of Neosporin® Ointment (polymyxin B-bacitracin-neomycin).

Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Neosporin® Ointment

(Polymyxin B-Bacitracin-Neomycin)

Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching, it may be manifest simply as failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

LETTERS TO THE JOURNAL

Hospital Nutrition

January 20, 1978

Dear Editor:

The significant problem of malnourished hospital patients as discussed in *The Reduction of Hospital Malnutrition* (*J Med Soc NJ* 74:998, 1977) is an omnipresent dilemma.[1,2]

Unfortunately, conventional dietary support frequently is not applicable to the circumstances of many patients. Specialized nutritional support is required in the form of defined-formula diets and/or parenteral nutrition consisting of conventional hyperalimentation, protein-sparing therapy, or intravenous lipids.

Specialized nutritional support must be under the direction of a multi-discipline team directed by the physician and consisting of the physician, dietitian, nurse, and pharmacist. Capabilities for nutritional assessment and correction of deficits should be developed in every hospital. To this end a national multi-discipline organization, The American Society for Parenteral and Enteral Nutrition (ASPEN),* consisting of the above-noted team, plus basic scientists and members of industry, has been formed for the purpose of disseminating information concerning specialized nutritional support. Membership is available to any qualified member of the above-noted disciplines.

It is hoped that physicians will become more cognizant of the magnitude of the problem of the malnourished patient and will avail themselves and their patients of nutritional support modalities developed during the past decade. Mortality and morbidity associated with many diseases and surgical procedures can be decreased significantly if malnutrition is recognized and corrected.

(signed) Murray H. Seltzer, M.D.

1. Bistrian BR, Blackburn GL, Vitale JJ, Cochran D, Naylor J: Prevalence of malnutrition in general medical patients. *JAMA* 235:1567-1570, 1976.

2. Bistrian BR, Blackburn GL, Hallowell E, Heddle R: Protein status of general surgical patients. *JAMA* 230:858-860, 1974.

*6900 Grove Road, Thorofare, N.J. 08086

Tunnel Vision?

January 31, 1978

Dear Dr. Krosnick:

Please consider the following commentary on your editorial on pages fourteen and fifteen of the January, 1978, issue, which may be treated by you in the conventional manner regarding such communications.

It would seem to me that the conflict between the specialist staff of the Hunterdon Medical Center and the Board of Trustees is not so much a question of creating a distinction between apples and oranges, as it is in creating a distinction between fruit and meat, or cereal grains, or some other type of vegetable. Both sides have reasonable, but not overwhelming, support for their positions. As most practitioners in the central and southern part of the state know, Hunterdon Medical Center was established *de novo* to meet a local need, and the concepts of the relationship between the family practitioners outside the hospital and the specialists within the hospital were firmly and sharply defined from the very beginning. I always have been of the personal opinion that the concept ultimately was doomed to fail because of the conflicts of interest, and the frustration of the specialists who could not function in the true role of specialists in their chosen field of practice.

However, the concept of "physicians rights" has absolutely nothing to do with the problem, except as a claim which the specialist staff at HMC chooses to utilize for their own purposes at this time. No specialist on the staff of that institution has been compelled to join the staff, or to stay on the staff, other than by the terms of their contracts and agreements with the Board of Trustees. The concept of specialist function has not been changed in the middle of the stream, and has not been imposed on any specialist employed at that institution after he initially agreed to employment. In other words, every single one of them entered into his or her contract and agreement with the institution with eyes open and with full understanding of the terms of the contract. Consequently, if they do not desire to work under these conditions, they should feel free, individually, to abandon the proposition. A straw man has been set up, knocked down, and a lot of smoke created without real appreciation of the true state of affairs. These physicians are like the professional athletes who want to have their contracts changed in midstream, and if they don't, want to ship out. They should be allowed to do so.

On the other hand, the institution, i.e., Hunterdon Medical Center, should realize that a locked-in, completely referral system is bound to create frustrations and feelings of captivity, which the independent practitioner of a specialty in another environment is not subjected to. Specialists in places such as the Lahey Clinic, Mayo Clinic, and Henry Ford Hospital, to name a few, are not confined to a particularly restricted line of referral, and may see patients by referral from any number of referring primary physicians, or others. If the Board of Trustees were to reach agreement with the family practitioner referral source, that the specialists could see patients independently as any other specialist does, in their office, wherever situated, the problem might be more easily resolved.

In any event, I think that tunnel vision and stubbornness on all parts has contributed to the present situation, and the admonition for a "pox on all of their houses," certainly should not be spelled "pax."

(signed) Francis M. Clarke, Jr., M.D.

"In a major study just completed in Canada, aspirin reduced the chances of stroke in high-risk men—but not in women...A Harvard neurologist urges anticoagulants for patients with atrial fibrillation...Coal strike drives MDs from Appalachia...A mysterious ailment affecting people who live in mobile homes has been traced to formaldehyde used in construction...A University of Wisconsin psychiatrist reports on the effectiveness of jogging for the treatment of depression..."

Important things are happening that you should know about right away. You'll find them on your desk every two weeks in Medical World News, the newsmagazine of medicine.

Read this one first.

medical world news

A McGraw Hill publication

McGraw Hill

CME INFORMATION

Joint Meeting Bergen County Medical Society and Bar Association

The Bergen County Medical Society and the Bergen County Bar Association will cosponsor a joint dinner meeting on April 18 at the Hackensack Golf Club in Emerson. Chief Justice Richard Hughes, former Governor of New Jersey, will be guest speaker. The all-inclusive fee is $16 per person. All MSNJ members are invited to attend. Tickets may be purchased through Mr. George Willis, Executive Director of the Bergen County Medical Society, 170 Main Street, Hackensack 07601—(201) 489-3140.

Cancer Symposium for Practicing Physicians

Burlington County Memorial Hospital, in conjunction with Fox Chase Cancer Center (Philadelphia), is sponsoring an all-day symposium on cancer for practicing physicians, to be held at the Hilton Hotel, Mount Laurel, New Jersey on May 3. Registration fee is $35, including luncheon. Six credit hours in Category I of the AMA Physician's Recognition Award will be granted for attendance. The morning program will be concerned with breast cancer and in the afternoon the topic is colon and rectal cancer. There will be a question and answer period after each session. For information please direct a communication to Robert W. Parvin, M.D., Director of Medical Education, Burlington County Memorial Hospital, 175 Madison Avenue, Mount Holly 08060, (609) 267-0700.

Chest Diseases

A "World Congress on Diseases of the Chest," sponsored by the International Academy of Chest Physicians and Surgeons, in affiliation with the American College of Chest Physicians, will be held in Kyoto, Japan, from July 2 to 7. Lectures, symposia, seminars, and round table discussions will offer a review of clinical and research work being conducted in cardiopulmonary medicine and surgery. Among the highlights are a "teaching day," including clinic visits, and a program on lung cancer. All sessions will have simultaneous translations in English and Japanese. Registration fees are $120 for ACCP members and $140 for nonmembers. For further information, please communicate with Alfred Soffer, MD., Executive Director, American College of Chest Physicians, 911 Busse Highway, Park Ridge, Illinois 60068.

CME CALENDAR

This listing is compiled through the cooperation of the Committee on Medical Education of the Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s), indicated by italics—last line of each item.

Apr.

12 Proper Use of Blood Gases
1:30 p.m.—John E. Runnells Hospital
Berkeley Heights
(*AMNJ and AAFP*)

12 Psychiatry
17 1-3 p.m.—Ancora Psychiatric Hospital
19 Hammonton
26 (*Ancora Psychiatric Hospital and AMNJ*)

12 Allergy
1-3 p.m.—Christ Hospital, Jersey City
(*Christ Hospital and AAFP*)

12 The Survivor Syndrome-Revisited
8:30-10:30 p.m.—Guido's Restaurant
Hackensack
(*North Jersey Psychiatric Society and AMNJ*)

12 Infectious Disease Symposium
8:30 a.m.-1 p.m.—Valley Hospital
Ridgewood (*Valley Hospital and AMNJ*)

12 **Annual William Burpeau Award Seminar**
6 p.m. — Manor, West Orange
(*Urology Section, AMNJ*)

12 **Advances in Internal Medicine**
19 9-11 a.m. — Middlesex General Hospital,
26 New Brunswick
(*Middlesex General Hospital, AMNJ and AAFP*)

12 **Cardiac Grand Rounds**
19 3-4:30 p.m. — New Jersey Medical
26 School, Newark
(*American Heart Association, N.J. Affiliate, CMDNJ, and AMNJ*)

12 **Advances in Medicine**
19 9:30-11 a.m. — Bergen Pines County
26 Hospital, Paramus
(*Bergen Pines County Hospital and AMNJ*)

12 **Courses for Psychiatrists**
19 8-10 p.m. — Hackensack Hospital
26 (*NJ Psychoanalytic Society and AMNJ*)

12 **Historical Aspects of OB Anesthesia**
4-6 p.m. — St. Joseph's Hospital, Paterson
(*St. Joseph's Hospital and AMNJ*)

12 **Tardive Dyskinesia**
1:30-3:30 p.m. — Trenton Psychiatric Hospital
(*Trenton Psychiatric Hospital and AMNJ*)

An Overview of the Alcoholism Movement
12 9:15 a.m.-4:30 p.m.
13 10 a.m.-4:30 p.m. — Carrier Clinic, Belle Mead
(*Carrier Clinic*)

13 **Interpretation of Pulmonary Function Tests**
11:45 a.m. — J.F. Kennedy Medical Center, Edison
(*Pfizer Laboratories and J.F. Kennedy Medical Center*)

13 **Medical Consequences of Chronic Spasm**
20 **Radiologic Approach to Jaundice**
27 **Update on Spine Problems**
3:30-4:30 p.m. — Burlington County Memorial Hospital, Mount Holly
(*Burlington County Memorial Hospital, Hahnemann Medical College and Hospital and AAFP*)

13 **Pediatric Allergy Course**
20 11 a.m.-12 noon — Children's Hospital
27 of Newark
(*Children's Hospital of Newark and AMNJ*)

14 **Psychiatric Lecture Series**
21 1:30-5 p.m. — Trenton Psychiatric
28 Hospital
(*Trenton Psychiatric Hospital and AMNJ*)

14 **Emergency Medicine Lecture Series**
21 Bayshore Community Hospital,
28 Holmdel
(*Bayshore Community Hospital and AAFP*)

15 **Current Trends in Medicine**
9 a.m.-12:30 p.m. — Ramada Inn, New Brunswick
(*Philippine-American Medical Society of New Jersey*)

17 **Neuroscience Conferences**
24 11:30 a.m.-12:30 p.m. — Bergen Pines County Hospital, Paramus
(*Bergen Pines County Hospital and AMNJ*)

New Tests in Laboratory Medicine
18 12 noon-1 p.m.
25 8-9 a.m. — Garden State Community Hospital, Marlton
(*Garden State Community Hospital and AMNJ*)

18 **Northern Regional Chest Conferences**
7:30-9:30 p.m. — Location to be announced
(*New Jersey Thoracic Society and AMNJ*)

18 **Intra-Aortic Balloon Pumping**
12 noon — St. Mary's Hospital, Orange
(*AMNJ and AAFP*)

18 **Northern Regional Chest Conference**
7:30-9:30 p.m. — Christ Hospital Jersey City
(*New Jersey Thoracic Society*)

19 **Cancer of the Breast**
1-5 p.m. — The Manor, West Orange
(*Oncology Society of New Jersey*)

19 **Diabetes Spring Symposium**
9 a.m. — Rutgers Medical School
(*American Diabetes Association and AMNJ*)

19 **Common Medical Problems of Interest to Family Physicians**
Southern Ocean County Hospital Manahawkin
(*Burlington County Memorial Hospital and AAFP*)

19 **Modern Concepts of Rehabilitation**
1-3 p.m. — Christ Hospital, Jersey City
(*Christ Hospital, AMNJ, and AAFP*)

19 **Cognitive Styles in Personal and Cultural Adaptations**
1-2:30 p.m. — St. Michael's Medical Center, Newark
(*CMDNJ and AMNJ*)

19 **The Psychodynamics of Dental Practice**
9 a.m.-4 p.m. — New Jersey Dental School Newark
(*AMNJ and CMDNJ*)

19 **Cardiology Conferences**
4-6 p.m. — Rutgers Medical School Piscataway
(*CMDNJ and AMNJ*)

19 **Special Problems in Neurology**
7-10 p.m. — VA Hospital, East Orange
(*VA Hospital and AMNJ*)

19 **Antibodies and Their Relationship to Disease**
1-3 p.m. — VA Hospital, Lyons
(*N.J. Allergy Society and AMNJ*)

20 **Anaerobic Infections**
11:45 a.m. — J.F. Kennedy Medical Center, Edison
(*Upjohn Company and J.F. Kennedy Medical Center*)

20 **Thrombolytic Therapy — New Approaches**
9:15-10:30 a.m. — Newark Beth Israel Medical Center
(*Newark Beth Israel Medical Center*)

20 **Nevi and Melanoma**
6:15 p.m. — Bridgeton Hospital
(*Bridgeton Hospital*)

20 **Hypertension — Old and New Concepts**
5-6:30 p.m. — Somerset Hospital Somerville
(*Somerset Hospital and AMNJ*)

21 **Management of Hepatitis**
12 noon — Freehold Area Hospital
(*AMNJ and AAFP*)

21 **Infant of the Diabetic Mother**
8:15-10:30 a.m. — Overlook Hospital Summit
(*Overlook Hospital and AMNJ*)

22 **Seminar in Anesthesiology**
9 a.m.-3 p.m. — Saint Barnabas Medical Center, Livingston
(*Educational Council for Anesthesiology of NJ and AMNJ*)

22 **CME Program**
8-10 a.m. — Newcomb Hospital Vineland
(*University of Pennsylvania School of Medicine and AAFP*)

25 **Medical/Legal Aspects of Medicine and Surgery**
8 p.m. — Warren Hospital, Phillipsburg
(*AMNJ and AAFP*)

25 **Common Duct Repair or Bypass**
8-10 p.m. — Englewood Men's Club Englewood
(*Englewood Surgical Society and AMNJ*)

26 **Evaluation of Suicidal Intent**
1-2 p.m. — VA Hospital, Lyons
(*VA Hospital and AMNJ*)

26 **Murder: Evaluation, Classification and Prediction**
3:15-4:45 p.m. — Fair Oaks Hospital Summit
(*Fair Oaks Hospital and AMNJ*)

26 **General Problems in Psychiatry**
1:15-2:45 p.m. — Marlboro Psychiatric Hospital
(*Marlboro Psychiatric Hospital and AMNJ*)

26 **Exercise and the Heart**
9:30 a.m.-4 p.m. — Holiday Inn, Paramus
(*American Heart Association, Bergen County Chapter, Bergen Pines County Hospital, and AMNJ*)

26 **1978 Symposium: Therapeutics in Coronary Heart Disease**
1-4 p.m. — Holiday Inn, Livingston
(*Essex County Heart Association and AMNJ*)

26 **Radiology Continuing Education Lecture Series**
Southern Ocean County Hospital Manahawkin
(*Burlington County Memorial Hospital and AAFP*)

26 **Battered Wives and Children**
1-3 p.m. — Christ Hospital, Jersey City
(*Christ Hospital and AAFP*)

27- **Spring Meeting**
30 Castle Harbor Hotel, Bermuda
(*N.J. Chapter, American Academy of Pediatrics and AMNJ*)

27 **Coronary Bypass**
11:45 a.m. — J.F. Kennedy Medical Center, Edison
(*Roche Laboratories and J.F. Kennedy Medical Center*)

28 **Surgical Management of Inflammatory Bowel Disease**
12:30 p.m. — Hamilton Hospital, Trenton
(*AMNJ and AAFP*)

May

1 **Neuroscience Conferences**
8 11:30 a.m.-12:30 p.m. — Bergen Pines
15 County Hospital, Paramus
22 (*Bergen Pines County Hospital and AMNJ*)

1 **Arthritis**
8 p.m.—Community Memorial Hospital Toms River
(*AMNJ and AAFP*)

1 **Psychiatry**
17 1-3 p.m.—Ancora Psychiatric Hospital
30 Hammonton
(*Ancora Psychiatric Hospital and AMNJ*)

1 **An Adolescent Patient in a Group Residence**
8-10 p.m.—1046 S. Orange Ave. Short Hills
(*Essex Psychiatric Seminar and AMNJ*)

2 **Diabetes**
8-9 a.m.—Greater Paterson General Hospital
(*Greater Paterson General Hospital and AMNJ*)

2 **Thyroid Disease**
11 a.m.—Greystone Park Psychiatric Hospital
(*AMNJ and AAFP*)

2 **Feasibility of Breast Cancer Screening**
5-6 p.m.—Rutgers Medical School Piscataway
(*Rutgers Medical School and AMNJ*)

3 **Lectures in Obstetrics/Gynecology**
6-10 p.m.—141 S. Harrison St., E. Orange
(*New Jersey Medical School and AMNJ*)

3 **Advances in Medicine**
10 9:30-11 a.m.—Bergen Pines County
17 Hospital, Paramus
24 (*Bergen Pines County Hospital and AMNJ*)

3 **Cardiology Conferences**
17 4-6 p.m.—Rutgers Medical School
(*CMDNJ and AMNJ*)

3 **Medical Humanism—Hospital Ethics**
11:30 a.m.—Rahway Hospital
(*AMNJ and AAFP*)

3 **Courses for Psychiatrists**
8-10 p.m.—Hackensack Hospital
(*NJ Psychoanalytic Society and AMNJ*)

3 **Treatment of Depression**
17 **Contemporary Issues of Psychiatric Residency Training**
1-2:30 p.m.—Community Health Center (CMDNJ), Newark
(*CMDNJ and AMNJ*)

3 **Cardiac Grand Rounds**
10 3-4:30 p.m.—New Jersey Medical School
17 Newark
24 (*American Heart Association, N.J.*
31 *Affiliate, CMDNJ, and AMNJ*)

3 **Behavioral Treatment of Smoking**
1-2 p.m.—VA Hospital, Lyons
(*VA Hospital & AMNJ*)

3 **Recent Advances in Internal Medicine**
10 **and Therapeutics**
17 9-11 a.m.—Middlesex General Hospital
24 New Brunswick
31 (*Middlesex General Hospital and AMNJ*)

4 **Update I—Carcinoma of the Lung—Part I**
11 **Update II—Carcinoma of the Lung—Part II**
18 **Neurological Complications of Alcoholism and Treatment**
11:45 a.m.—J.F. Kennedy Medical Center, Edison
(*J.F. Kennedy Medical Center*)

4 **Schizophrenia**
11 **The Impact of Genetics on Medical Practice**
18 **New Joints for Old**
25 **Impotence**
3:30-4:30 p.m.—Burlington County Memorial Hospital, Mount Holly
(*Burlington County Memorial Hospital, Hahnemann Medical College and Hospital and AAFP*)

4 **Psychiatric Study**
8-10 p.m.—312 Harding Drive South Orange
(*Group for Advanced Psychiatric Study and AMNJ*)

4 **Pediatric Allergy Course**
11 11 a.m.-12 noon—Children's Hospital
18 of Newark
25 (*Children's Hospital of Newark and AMNJ*)

4 **Infectious Diseases Course**
8:30-9:30 a.m.—Somerset Hospital Somerville
(*Somerset Hospital of Newark and AMNJ*)

5 **Cerebral Vascular Disease**
8:30 a.m.—United Hospitals of Newark
(*AMNJ and AAFP*)

5 **New Advances in Diagnostic Ultrasound of the Abdomen**
12 noon-1 p.m.—St. Mary's Hospital Orange
(*St. Mary's Hospital and AMNJ*)

5 **Emergency Medicine**
12 Bayshore Community Hospital,
19 Holmdel
26 (*Bayshore Community Hospital and AAFP*)

6- **MSNJ Annual Meeting**
9 Holiday Inn-Howard Johnson's

6 **Spencer T. Snedecor Trauma Oration**
1:30-3 p.m.—Atlantic City
(*MSNJ and AMNJ*)

6 **Governor's Conference**
9 a.m.-1 p.m.—Atlantic City
(*MSNJ and AMNJ*)

7 **Family Practice Programs**
8 Howard Johnson's Motor Hotel Atlantic City
(*MSNJ and AAFP*)

9 **Estrogen Progesterone Preparations in Female Reproductive Physiology**

25 **Endocrinology and Diuretics in Hypertension and Edema**
11:45 a.m.—J.F. Kennedy Medical Center, Edison
(*Searle Laboratories and J.F. Kennedy Medical Center*)

9 **Controversies in the Treatment of Hypertension**
12:30-2 p.m.—Mercer Medical Center, Trenton
(*American Heart Association and AMNJ*)

9 **Fluid and Electrolyte Imbalance**
9 p.m.—Bayonne Hospital
(*AMNJ and AAFP*)

10 **Arthritis**
1:30 p.m.—John E. Runnells Hospital Berkeley Heights (*AMNJ and AAFP*)

10 **Annual Awards Dinner—AMNJ**
6 p.m.—Chanticler, Millburn
(*Academy of Medicine of New Jersey*)

11 **Hypersensitivity Disorders of the Lung and Asthma**
10 a.m.-12 noon—St. Michael's Medical Center, Newark
(*St. Michael's Medical Center and AMNJ*)

13 **CME Program**
27 8-10 a.m.—Newcomb Hospital, Vineland
(*University of Pennsylvania School of Medicine and AAFP*)

15 **Endotoxic/Hemorrhagic Shock**
12 noon—Hospital Center at Orange
(*AMNJ and AAFP*)

16 **Kidney Stones**
12 noon—St. Mary's Hospital, Orange
(*AMNJ and AAFP*)

16 **Ambulatory Peritoneal Dialysis**
9 a.m.—Holy Name Hospital, Teaneck
(*Holy Name Hospital*)

16 **E.R.C.P.**
8:30-9:30 p.m.—Irvington General Hospital
(*Irvington General Hospital and AMNJ*)

17 **Anaerobic Infections**
1-3 p.m.—Christ Hospital, Jersey City
(*Christ Hospital, AMNJ, and AAFP*)

17 **Special Problems in Neurology**
7-10 p.m.—VA Hospital, East Orange
(*VA Hospital and AMNJ*)

18 **Advances in Pediatrics**
6:15 p.m.—Bridgeton Hospital
(*Bridgeton Hospital*)

18 **Antithrombotic Therapy**
5-6:30 p.m.—Somerset Hospital Somerville
(*Somerset Hospital and AMNJ*)

18 **Sixth Annual George Fried Memorial Lecture**
9:30-11:30 a.m.—Newark Beth Israel Medical Center
(*Newark Beth Israel Medical Center and AMNJ*)

19 **Chronic Renal Failure**
12 noon—Freehold Area Hospital
(*AMNJ and AAFP*)

19 **Immunization: Prospects for New Vaccines**
8:15-10:30 a.m.—Overlook Hospital Summit
(*Overlook Hospital and AMNJ*)

20 **Immunology in Obstetrics and Gynecology**
9 a.m.-5 p.m.—Governor Morris Inn Morristown
(*New Jersey Obstetrical and Gynecological Society and AMNJ*)

20 **The Abdomen: The CAT vs. The ECHO**
Sheraton Inn, Newark Airport
(*AMNJ*)

20 **George T. Pack, M.D. Memorial Cancer Symposium**
9 a.m.-1 p.m.—North Jersey Country Club, Wayne
(*Greater Paterson General Hospital and AMNJ*)

23 **Treatment of Connective Tissue Disease**
8-9 a.m.—Paterson General Hospital
(*Greater Paterson General Hospital and AMNJ*)

23 **Common Topical Agents in Dermatological Practice**
8:30-10 p.m. – 645 Cambridge Road Paramus
(*Bergen Co. Chapter, American Medical Women's Association and AMNJ*)

23 **Cerebral Vascular Disease**
8 p.m. – Warren Hospital, Phillipsburg
(*AMNJ and AAFP*)

24 **Musculoskeletal Disorders and Current Therapy**

31 **Cystic Fibrosis**
1-3 p.m. – Christ Hospital, Jersey City
(*Christ Hospital, AMNJ, and AAFP*)

24 **Radiology Continuing Education Lecture Series**
Southern Ocean County Hospital
(*Burlington County Memorial Hospital and AAFP*)

26 **Role of Affect in Empathy**
8:30-10:30 p.m. – Hackensack Hospital
(*New Jersey Psychoanalytic Society and AMNJ*)

26 **Ophthalmologic Manifestations in Systemic Disease**
12:30 p.m. – Hamilton Hospital, Trenton
(*AMNJ and AAFP*)

31 **Cardiac Arrhythmias**
3 p.m. – Ancora Psychiatric Hospital Hammonton
(*AMNJ and AAFP*)

June

1 **Infectious Disease Course**
8:30-9:30 a.m. – Somerset Hospital Somerville
(*Somerset Hospital and AAFP*)

1 **Current Radiation Therapy**
11 a.m. – Greystone Park Psychiatric Hospital
(*AMNJ and AAFP*)

1 **Cushing's Syndrome**

8 **Carcinoma of the Breast: Part I – Diagnosis**

15 **Carcinoma of the Breast: Part II – Treatment**
11:45 a.m. – J.F. Kennedy Medical Center, Edison
(*J.F. Kennedy Medical Center*)

2 **Lipid Metabolism**
8:30 a.m. – United Hospitals of Newark
(*AMNJ and AAFP*)

5 **Neuroscience Conferences**
12 11:30 a.m.-12:30 p.m. – Bergen Pines
19 County Hospital, Paramus
26 (*Bergen Pines County Hospital and AMNJ*)

5 **Thyroid Diseases**
8 p.m. – Community Memorial Hospital Toms River
(*AMNJ and AAFP*)

5 **Graft Materials in Vascular Surgery**

6 Playboy Club, Great Gorge, McAfee
(*Peripheral Vascular Section of Englewood Hospital and CMDNJ*)

5 **Poorly Controlled Anger in an Obsessive Compulsive Woman**
8-10 p.m. – location to be announced
(*Essex Psychiatric Seminar and AMNJ*)

6 **Rehabilitation of Spinal Cord Injury and Catastrophic Brain Injury**

13 **Nuclear Medicine in Chest Diseases**

27 **Pump Failure**
8-9 a.m. – Greater Paterson General Hospital
(*Greater Paterson General Hospital and AMNJ*)

6 **Esophageal Emergencies**
5-6 p.m. – Rutgers Medical School Piscataway
(*Rutgers Medical School and AMNJ*)

7 **Advances in Medicine**
14 9:30-11 a.m. – Bergen Pines County Hospital, Paramus
(*Bergen Pines County Hospital and AMNJ*)

7 **Cardiology Conferences**
21 4-6 p.m. – Rutgers Medical School Piscataway
(*CMDNJ and AMNJ*)

7 **Urinary Tract Infection**

14 **Immunization Practices – An Update**
1-3 p.m. – Christ Hospital, Jersey City
(*Christ Hospital, AAFP, and AMNJ*)

7 **Cardiac Grand Rounds**
3-4:30 p.m. – New Jersey Medical School Newark
(*American Heart Association, N.J. Affiliate, CMDNJ, and AMNJ*)

7 **Psychiatry**
14 1-3 p.m. – Ancora Psychiatric Hospital Hammonton
(*Ancora Psychiatric Hospital and AMNJ*)

Gynecologic Endoscopy
8 8 a.m.-5 p.m.
9 7:45 a.m.-4:30 p.m. – Memorial General Hospital, Union
(*The New Jersey Fertility Foundation and AMNJ*)

10 **Differential Diagnosis – The Wheezing Patient**

24 **The Leukemias**
8-10 a.m. – Newcomb Hospital, Vineland
(*Newcomb Hospital and University of Pennsylvania Hospital*)

14 **Current Biological Concepts in Psychiatry**
1-2:30 p.m. – Community Health Center (CMDNJ), Newark
(*CMDNJ and AMNJ*)

15 **Beta-Adrenergic Blocking Agent in Cardiovascular Disease**
5-6:30 p.m. – Somerset Hospital Somerville
(*Somerset Hospital and AMNJ*)

16 **Sports Medicine**
12 noon – Freehold Area Hospital
(*AMNJ and AAFP*)

16 **Neurological Diagnosis by Inspection**
8:15-10:30 a.m. – Overlook Hospital Summit
(*Overlook Hospital and AMNJ*)

20 **Northern Regional Chest Conferences**
7:30-9:30 p.m. – Beth Israel Hospital Newark
(*New Jersey Thoracic Society and AMNJ*)

20 **Acute and Chronic Leukemia**
12 noon – St. Mary's Hospital, Orange
(*AMNJ and AAFP*)

20 **Shock**
8:30 p.m. – Marriott Motor Inn Saddle Brook
(*Fair Lawn Memorial Hospital, AMNJ and AAFP*)

21 **Special Problems in Neurology**
7-10 p.m. – VA Hospital, East Orange
(*VA Hospital and AMNJ*)

22 **Pathophysiology of Edema – Intermittent Idiopathic Edema**
11:45 a.m. – J.F. Kennedy Medical Center, Edison
(*Searle Laboratories and J.F. Kennedy Medical Center*)

24 **Radiology Continuing Education Lecture Series**
Southern Ocean County Hospital Manahawkin
(*Burlington County Memorial Hospital and AAFP*)

27 **Current Radiation Therapy**
8 p.m. – Warren Hospital, Phillipsburg
(*AMNJ and AAFP*)

29 **Complications of Continuous Ventilatory Support**
11:45 a.m. – J.F. Kennedy Medical Center, Edison
(*Pfizer Laboratories and J.F. Kennedy Medical Center*)

30 **Chronic Obstructive Lung Disease**
12:30 p.m. – Hamilton Hospital, Trenton
(*AMNJ and AAFP*)

OBITUARIES

Dr. Frank M. Ash

At the untimely age of 51, Frank M. Ash, M.D., a member of our Passaic County component, died on January 27 at his home after a long illness. A native of Paterson, Dr. Ash was graduated from Cornell University Medical College in 1953 and took a residency in surgery at St. Luke's Hospital in New York City, becoming a diplomate of the American Board of Surgery. Dr. Ash, a Fellow of the American College of Surgeons, was a member of the department of surgery, a past-president of the medical board, and a member of the board of trustees at St. Joseph's Hospital in Paterson. He also had been on the staffs of Valley Hospital in Ridgewood and Bergen Pines Hospital in Paramus.

Dr. William G. Bernhard

We have just learned of the death on December 31, 1977, of William G. Bernhard, M.D., a member of our Essex County component. A native of Wisconsin, Dr. Bernhard received his medical degree from the University of Pennsylvania School of Medicine in 1931 and pursued a career in pathology, becoming board certified in both clinical and anatomical pathology. He had been director of laboratories at St. Barnabas Hospital in Livingston. Dr. Bernhard was a Fellow of the American College of Physicians and of the American Society of Clinical Pathologists and a member of the Association of Military Surgeons. Over the years he had done research in cancer diagnosis and in the pathology of rheumatoid arthritis. During World War II Dr. Bernhard served with the medical department of the Army of the United States. He was 74 years old at the time of his death.

Dr. Robert J. Childers

On January 10 Robert J. Childers, M.D., one of Union County's senior physicians, died at his home. Born in 1887 in Tennessee, Dr. Childers earned his doctorate in medicine from Jefferson Medical College in 1912. He took a residency at Manhattan Eye and Ear Hospital and at the Vienna Ophthalmological Clinic, becoming board certified in his chosen field. He had been senior surgeon in the Department of EENT at the Muhlenberg Hospital in Plainfield. He was a Fellow of the American College of Surgeons and of the Academy of Ophthalmology and Otolaryngology. Dr. Childers served in the department of medicine of the Army of the United States in World War I.

Dr. Eli L. Cooperman

Word has just been received of the death on May 16, 1976, after a long illness, of Eli Louis Cooperman, M.D., of Perth Amboy and Fords. Born in Poland, Dr. Cooperman earned his medical degree from the University of Vienna in 1937, and came to the United States the following year to practice general medicine in Middlesex County. He had been on the staff at the Perth Amboy General Hospital and was a member of the American Academy of Family Practice. Illness forced his retirement in 1969 and he moved to Southwest Harbor, Maine where he was living at the time of his death at the age of 80.

Dr. H. Donald Cowlbeck

H. Donald Cowlbeck, M.D., a well-known Trenton physician, died on February 3 at his home. Born in Glens Falls, New York, Dr. Cowlbeck earned his medical degree from the University of Pennsylvania School of Medicine in 1926. He took an internship and residency at the Naval Hospital in Philadelphia and went on to pursue a career in urology, becoming board certified in that specialty. He was a Fellow of the American College of Surgeons and a member of the American Urological Association and of the prestigious New Jersey Society of Surgeons. Dr. Cowlbeck had been chief of the department of urology at Mercer Medical Center in Trenton and also was affiliated with Princeton Medical Center. He was 76 years old at the time of his death.

Dr. Herman Halpern

At the grand age of 89, Herman Halpern, M.D., formerly of Englewood, died in Acton, Massachusetts on January 28. Born in Russia, Dr. Halpern was educated in the United States, having come here as a child of ten. He received his medical degree from the College of Physicians and Surgeons of Columbia University in 1914 and practiced in Englewood for 55 years. He had been affiliated with the Englewood Hospital and inaugurated the first pathological laboratory in Bergen County at that institution. In mid career he pursued his interest in anesthesiology and served in that capacity until retirement in 1972, when he moved to Belmont, Massachusetts.

Dr. John E. Hughes

John E. Hughes, M.D., a member of our Morris County component, died on January 8 after a short illness. A native of New Jersey, Dr. Hughes earned his medical degree from Jefferson Medical College in 1948 and took residencies in surgery at Jefferson, Burlington County Memorial Hospital in Mount Holly, and at the Norristown State Hospital in Norristown, Pennyslvania, becoming board certified in that field. He had practiced first in Mercer County and moved to Parsippany in 1960. Dr. Hughes was chief of surgery at Riverside Hospital in Boonton, and was affiliated also with St. Clare's Hospital in Denville, Morristown Medical Center, and Greystone Park Psychiatric Hospital. Dr. Hughes was only 52 years of age at the time of his death.

Dr. Henry H. Kessler

Henry H. Kessler, M.D., the founding medical director of the renowned Kessler Institute for Rehabilitation in West Orange, died on January 18 at the age of 81. He had been instrumental in introducing in the United States the surgical

technique of cineplasty for the muscular control of an artificial arm and the pneumatic-operated arm prosthesis. A native of New Jersey, Dr. Kessler earned his medical degree at Cornell University Medical College in 1919 and pursued a career in orthopedic surgery. He was board certified in that specialty and a Fellow of the American College of Surgeons and of the American Academy of Orthopaedic Surgeons. In addition to his association with the Kessler Institute, he had been chief of the medical staff at the Hospital for Crippled Children in Newark and associated with the departments of orthopedic surgery at Beth Israel and Martland Hospitals in Newark, Christ Hospital in Jersey City, and Hasbrouck Heights Hospital. In 1952 Dr. Kessler was recipient of the first President's Award of the Committee on Employment of the Physically Handicapped. He was the author of many publications concerning rehabilitation for the disabled. His citations for work with the physically handicapped were international and totaled over twenty. He served during both World Wars—in the second as a captain in the Navy on active duty in the Pacific—and was rehabilitation consultant to the United Nations and to the World Veterans Federation.

Dr. Geza R. Kurtz

Formerly of Bayonne, Geza R. Kurtz, M.D., one of Hudson County's senior members, died in January in Salzburg, Austria where he had been living for some time. Born in Yugoslavia and educated at the University of Budapest Medical College in Hungary, class of 1932, Dr. Kurtz practiced obstetrics and gynecology in Jersey City from 1948 until retirement in 1976. He was board certified in his chosen field and a Fellow of the American College of Surgeons and of the American College of Obstetricians and Gynecologists. He had been affiliated with Fairmount and Margaret Hague Maternity Hospitals in Jersey City.

Dr. Elton W. Lance

The 162nd President of the Medical Society of New Jersey (1954-1955), Elton Wallace Lance, M.D., died in Rahway Memorial Hospital on February 20 after a brief illness. Born in Cabot, Vermont in 1898, Dr. Lance was graduated from the University of Vermont School of Medicine in the class of 1924 and took graduate work in surgery at the Mary Fletcher Hospital in Burlington, Vermont, and New York Postgraduate Hospital and Polyclinic Hospital. He came to New Jersey in 1925 to establish a practice in general surgery in Rahway. He was a Fellow of the American College of Surgeons and a member of the prestigious New Jersey Society of Surgeons, which he served as President in 1963. He had been on the surgical staff at Rahway Hospital for many years, where he also served several terms as president of the staff and chairman of the executive committee.

He was active in organized medicine on both the county and state level, having been president of his county medical society (Union—1946-47), and having served on the Board of Trustees of the Medical Society of New Jersey from 1946 until ascending to the presidency in 1954. Dr. Lance served as an alternate delegate to the American Medical Association from 1955 to 1963. He long will be remembered for his contributions to the development of the Medical-Surgical Plan of New Jersey. He was chairman of the original fact-finding committee on voluntary health insurance, which became the founding committee of the Medical Service Administration and the Medical-Surgical Plan of New Jersey. He was the first president of these organizations after their incorporation and served in that capacity until 1942 when he resigned to enter the military service. Following discharge in 1946 he became a trustee of the Medical-Surgical Plan of New Jersey, a position he held for many years.

He was active in civic affairs and served on the board of health of Rahway for nine years and also as school physician. Two sons, Dr. Edward M. Lance and Dr. Kendrick P. Lance, are practicing physicians.

Dr. Herman Levy

We have just learned of the death at Beth Israel Medical Center on December 21, 1977, of one of Passaic County's senior practitioners, Herman Levy, M.D. A native of New York City, Dr. Levy had earned his medical degree from New York University and Bellevue Hospital in 1914 and pursued graduate work in gynecology at Mt. Sinai and New York Postgraduate Hospitals and at the Jersey City Medical Center. He practiced in Passaic for 55 years and had been chief of the department of obstetrics and gynecology at Beth Israel Medical Center (Passaic) for 20 of those years. Dr. Levy also was affiliated with Hasbrouck Heights Hospital. He was a Fellow of the American Academy of Obstetrics and Gynecology and of the International College of Surgeons. He was 85 years old at the time of his death.

Dr. Ben B. Markowitz

Word has just been received of the death on October 8, 1977, at his home in Sarasota, Florida, of Ben B. Markowitz, M.D. Dr. Markowitz was born in 1902 and received his medical degree from New York University School of Medicine in 1925. He was a diplomate in otolaryngology and a Fellow of the American College of Surgeons, and practiced his specialty in Jersey City until retirement in 1969. He had been affiliated with Margaret Hague Maternity Hospital, Christ, and Fairmount Hospitals in Jersey City, and the New York Eye and Ear Infirmary.

Dr. Thomas A. Masciocchi

Thomas A. Masciocchi, M.D., a member of our Essex County component, died on January 5 at his home. Born in 1914 and graduated from Rush Medical College in 1938, Dr. Masciocchi was a general practitioner in Orange for many years. He had been affiliated with St. Mary's Hospital in Orange and East Orange General Hospital as well as Saint Barnabas Medical Center in Livingston. He was certified by the American Board of Family Practice and a Fellow of the American Academy of Family Practice. During World War II Dr. Masciocchi served in the medical department of the Air Force of the United States.

Dr. Herman L. Taft

One of Hudson County's senior members, Herman L. Taft, M.D., formerly of North Bergen, died on December 30, 1977. Born in 1906 and graduated from Columbia University College of Physicians and Surgeons in 1929, Dr. Taft pursued graduate work in orthopedic and trauma surgery. He was a Fellow of the American College of Surgeons and had been chief of orthopedic surgery at North Hudson Hospital in Weehawken and a member of the attending staff of the orthopedic section at Christ Hospital and the Hebrew Home for the Aged in Jersey City. He had retired from active practice just last year. During World War II Dr. Taft served in the department of medicine of the Army of the United States.

BOOK REVIEWS

Clinical Cardiology

Maurice Sokolow, M.D. and Malcolm B. McIlroy, M.D., Los Altos, California, Lange, 1977. Pp. 659. Illustrated. Soft cover ($16)

This new medical text presents a complete, modern description of all the important aspects of adult clinical cardiology, ranging from basic physiology to the latest sophisticated techniques of diagnosis and treatment. Every subdivision of this expanding science is discussed and described carefully, using innumerable figures, charts, graphs, and illustrations.

The 650-page book bulges with information, with proper balance to those subjects such as coronary artery disease and hypertension, which are encountered most frequently, and to the more esoteric subjects which are given less space. This makes for a more compact, less encyclopedic tome suitable to the needs of medical students, interns, residents, primary physicians, internists, and cardiologists.

The various chapters include physiology, investigative procedures, therapeutics, coronary disease, hypertension, congenital heart disease, cardiac failure, acquired lesions, conduction defects, arrhythmias, endocarditis, myocardopathy, tumors, pulmonary disease, and many others. For the more advanced student or scientist, there are probably a thousand bibliographical references, current to 1977.

Although all of the chapters are good, I especially favored the outstanding contents in "Infective Endocarditis" and "Systemic Hypertension." These two subjects, so frequently encountered, one in the hospital and one in the office, were described in the most up-to-the-minute fashion. The treatment of the two conditions can be frustrating because of the variety of expert opinions freely available. But in this volume, the authors give a clear, rational approach which can be followed easily. Most practicing doctors will appreciate that touch.

This book is a compleat work, written in a clear, direct, reasonable fashion, free of redundant material and true to its title *Clinical Cardiology*. Every physician should own it, even those removed from the cardiovascular field.

Manuel J. Rowen, M.D.

The Doctors and Patients Handbook of Medicines and Drugs

Peter Parish, M.D. New York, Alfred A. Knopf, 1977. Pp. 412. ($12.95-hardcover; $5.95-softback).

In spite of its title, Dr. Parish's book contains little of special value for physicians. Part I of this three-part volume deals with very basic principles of drug usage. This may serve patients as a good introduction to the intelligent use of pharmaceuticals. Part II discusses drugs by groups and types, such as psychotropics, tonics, reducing drugs, and diuretics. It also includes sections on drugs used to treat cancer, malaria, and amebiasis. Some of these sections are too sketchy even to be of value to patients. The third part, entitled "Pharmacopeia," lists OTC and prescription drugs by brand and generic names. For each drug there are given its classification, its major indications, adverse effects and precautions, and its recommended dose. Introduction of drugs to the market in the past two or so years, and removals, are not reflected.

For a physician, the PDR and the APhA Handbook of Non-Prescription Drugs are of more value than this volume. I suspect that this book similarly will be of limited value to the patients of those physicians who share with their patients some knowledge of the patients' diseases and treatments. Dr. Parish does advise the reader to refer questions about drugs to the pharmacist, especially in the case of OTC drugs. This is a recommendation I endorse. The pharmacist is becoming more and more involved in patient education regarding drugs, even beyond the mandated distribution of patient package inserts.

Hyman W. Fisher, M.D.

Medicine's men on the Hill

Just who are they? They're the AMA's permanent representatives to the Congress of the United States from the AMA's Washington office.

In every Congress about 10% of all legislation introduced is health related — some 2,500 bills and the number is increasing every year. The AMA lobyists serve as the profession's eyes, ears, and voice on the Hill. Keeping in day-to-day contact with the members of Congress and their staffs. Explaining and promoting the profession's views. Reporting on legislation. And providing legislators with resource material and information on medical and health subjects.

They're on the Hill to protect your interests, lobbying to retain the basic freedoms of medical practice in any government health program that might be enacted. Equally important, they lobby to insure the passage of constructive and workable health legislation for the public.

Sure, the AMA lobbies. It lobbies for the rights and interests of our profession and for quality medical care for every American. With your support, the AMA can be even more effective.



Join us.
We can do much more together.

Dept. of Membership Development
American Medical Association
535 N. Dearborn St./Chicago, IL 60610

Please send me more information on the AMA and AMA membership.

Name _____

Address _____

City/State/Zip _____

OCEAN COUNTY

5 Miles South of Toms River

NOW RENTING FOR OCTOBER 1977
NEW MEDICAL AND DENTAL ARTS BUILDING
GROUND LEVEL, 1400 sq. ft. (may subdivide)

General Dentist located in building
Excellent for Group or Solo practice

For more information
CALL (201) 693-6524

RUTHERFORD (SO. BERGEN COUNTY)

GRACIOUS 1-FAMILY HOME?
or
PROFESSIONAL HOME-OFFICE?
or
MOTHER-DAUGHTER HOME?

This exceptionally versatile home in finest residential and professional location is perfect for any of these uses. Landscaped grounds. 11 Rooms. By owner—principals only. $89,900.

call (201) 933-8355

WE HAVE GROWN! HAVE YOU?
DOCTORS NEEDED!

Ocean Caunty Papulatian

1960	1975	1980
108,000	275,000	325,000

N.J. Standard: 1 physician per 1,000 pap.
Ocean County Taday: ¾ physician per 1,000 pap.
Ocean Caunty Needs 70-80 Dactars NOW!

We have a 1,200 sq. ft. affice available which features a receptian area, general treatment area, twa examining raoms, surgery raam, doctars launge, private affice, and private bathraam. Ideally suited for general practitioner.

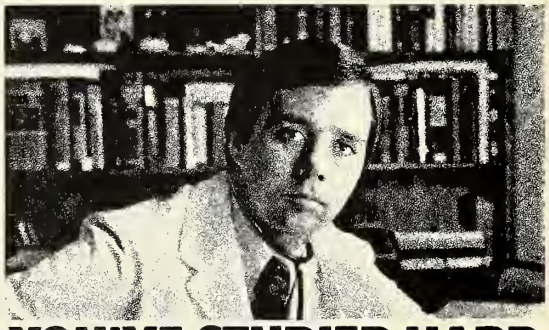
CALL (201) 244-7227 FOR INFORMATION



Personnel —
See Pages
368, 369

Real Estate —
See Page
369

CME
See Pages
291, 359-362



YOU'VE STUDIED HARD TO BE A DOCTOR. BE A DOCTOR.

The U.S. Navy can offer you the kind of practice you studied so hard for. Devoting your time solely to the practice of medicine.

As a Navy physician, we'll give you a challenging and rewarding practice—a practice with a minimum of paperwork and no administrative overhead. It's a practice complete with excellent facilities and support personnel.

In addition, you'll find a Navy practice allows you time to spend with your family. Associate with other highly motivated physicians. Further your schooling. Even enjoy 30 days' paid vacation every year.

All this, plus a starting salary of $30,000 a year—more, depending on your experience.

If it all sounds like the practice you studied so hard for, call us for more information. Just contact:

HARRIET E. ZECH, Lt. Nurse Corps, U.S.N.
Gateway 1 Bldg., Newark, NJ 07102
Phones 201-645-2109, 201-645-2181

BE THE DOCTOR YOU WANT TO BE. IN THE NAVY.

NEW JERSEY — ANCORA

Immediate openings for Staff Psychiatrists and Primary Care Physicians in 1100 bed JCAH and AMA Accredited Psychiatric Hospital with 3 years approved Residency Training. Affiliated with Temple University Hospital, Department of Psychiatry. Located 40 minutes from Atlantic City and Philadelphia. Salary: $28,777 to $40,700 for 35 Hour Work Week. Private Practice after duty hours permitted. Liberal fringe benefits include Professional Liability, Blue Cross, Blue Shield, and Life Insurance.

Write Shao-Chi Yu, M.D., Medical Director, Ancora Psychiatric Hospital, Hammonton, New Jersey—08037, or call Area 609-561-1700, Ext. 203.

EMERGENCY PHYSICIAN

Full time E. R. physician needed in lovely shore community with active E. R. Salary negotiable. Liberal benefits including malpractice insurance, BC/BS, major medical, retirement plan, and life insurance. Must be qualified by formal training and experience.

Apply: Chester B. Kaleskowski,
Assistant Administrator
Southern Ocean County Hospital
1140 West Bay Avenue
Manahawkin, N.J. 08050

GENERAL PRACTIONERS

A retiring physician is needed in a Retirement Community located in Ocean County. Complete security, all recreational and cultural activities including golf are available. Physician can practice at his convenience, no hospital connections required.

For specific information please reply to

Box No. 42, c/o THE JOURNAL
315 West State Street
Trenton, N.J. 08618

MEDICAL PRACTICES — ALL SPECIALTIES

APPRAISALS — SALE — TRANSFER — MANAGEMENT CONSULTANTS

Locational analysis and Feasibility Studies

Unique opportunities for Solo — Groups — Partnerships in *existing lucrative Medical Practices throughout U.S.* Specialists in "Recruitments" of Medical and Paramedical Specialists for Hospitals, Pharmaceutical and Industrial positions all over U.S.

Call: (212) RX3-3597, 3630 or write:

DR. FREDERICK KATZ ASSOCIATES AGENCY, INC.
96-08 70th Avenue, Forest Hills, N.Y. 11375

PHYSICIAN

for industrial medical clinic

We seek a general practitioner or internist for the position of Staff Physician at our divisional headquarters and chemicals manufacturing facility in Bridgewater Township, New Jersey.

Position is on the staff of a fully equipped medical clinic where you will be associated with two other physicians serving an employee population of 2,500.

This is a full-time position offering regular hours, attractive salary and liberal benefits. New Jersey license required. Experience in industrial medicine preferred, but not essential. For confidential consideration, send resume and salary requirements to J. H. Ferguson.

AMERICAN CYANAMID COMPANY

Bound Brook, New Jersey 08805

An Equal Opportunity Employer M/F

RESIDENCY IN PHYSICAL MEDICINE AND REHABILITATION

Dynamic, young program with balanced academic and clinical emphasis under the supervision of 10 physiatrists. Three year program and integrated internship/residency with opportunity for research and pursuit of special interests both in medical school and private hospital settings. Stipends from $13,300 to $15,200 depending on qualifications. GI schooling benefits available for veterans. We will pay for visits in selected cases. Telephone or write for information to:

John F. Ditunno, Jr., M.D., Director
Department of Rehabilitation Medicine
Thomas Jefferson University Hospital
11th and Walnut Street
Philadelphia, Pa. 19107
Telephone: (215) 829-6573

CLASSIFIED ADVERTISEMENTS

CARIOLOGIST—Seeks association with cardiology group or hospital based practice. 34, certified ABIM and suspecialty boards cardiovascular disease. University trained in all non-invasive and invasive techniques. Available immediately. Martin E. Kraus, 9 Brookside Avenue, Fair Haven, New Jersey 07701. (201) 747-9230.

GENERAL PRACTITIONER—Seeks practice opportunity, solo, group or instituional. Age 39, board experience. Available June 1978. S. H. Jone, M.D., 403 Hampton Street, Philipsburg, Pa. 16866.

GENERAL PRACTITIONER—Seeks part-time employment, evenings and weekends, South Jersey. Well trained, 25 years experience. Reply (609) 692-7621 after 4 p.m. or write Box No. 44, c/o THE JOURNAL.

GENERAL SURGEON—University trained with Vascular and Endoscopy; Board eligible; 35, FMG, FLEX. Available immediately. CV upon request. Write Box No. 54, c/o THE JOURNAL.

INTERNIST—Board certified, looking for part-time or full-time opening in clinic or Industrial Medicine in Newark or vicinity. Telephone (412) 351-1155 or write Box No. 40, c/o THE JOURNAL.

PEDIATRICIAN—Seeks position in group practice, partnership or solo in Northern or Central New Jersey. Board certified, bilingual. Available August 1978. Write Box No. 45, c/o THE JOURNAL.

UROLOGIST—Seeks solo or group practice. FMG, Board certified, university trained, FLEX. Available July 1978. Write Box No. 57, c/o THE JOURNAL.

NEEDED—Emergency Physician—excellent opportunity, Central New Jersey, university community. Academically oriented, professionally and financially rewarding. Six-man group. Call E. V. McGinley, M.D. (201) 277-0466.

NEEDED—Family Practitioner; Board certified or eligible for Group Practice in large medical facility. Newly equipped. Near medical school. Top salary and bonus. Write B. Levine, M.D., A.B.F.P., Highway 18, East Brunswick, N.J. 08816 or call (201) 246-1001.

NEEDED—Internist or Family Practitioner; Partnership basis, Manhattan private practice. No medicaid, large volume, grossing 6 figures, main thoroughfare. No investment, guaranteed income. Write Box No. 52, c/o THE JOURNAL.

PRACTICE WANTED—Internist, excellent University trained, wishes partnership with another Internist or buying an existing practice for desired value. Write Box No. 28, c/o THE JOURNAL.

PRACTICE WANTED—Internist wants to purchase a busy General/Internal Medical Practice in Newark or suburbs. Write Box No. 41, c/o THE JOURNAL.

PRACTICE WANTED—Wishes to purchase busy Internal/General Practice of retiring physician in Newark or Trenton. Write Box No. 56, c/o THE JOURNAL.

PRACTICE AVAILABLE—General Practice; well-equipped, established 32 years in Wharton, N.J. (Northwest). Dover General Hospital within walking distance. Available immediately. Charles K. Carleton, M.D., 266 South Main Street, Wharton, N.J. 07885. Telephone (201) 366-2557.

PRACTICE AVAILABLE—Orthopedic Surgery Practice; For Sale, established 30 years, suburban Northern New Jersey, to Board Certified Orthopedist. Gross $150,000+, Compensation and insurance referrals. Furniture and equipment available. Write Box No. 53, c/o THE JOURNAL.

FOR SALE—X-ray Machine. Make, Standard; Model: Standex, 100 M.A. w. Fluoroscope, Tilt table, hand driven. All accessories. Call (201) 366-2557.

FOR SALE—Home/Office; Glen Ridge; Family practice 38 years. Split-level home and office built in 1955. Residential area. Excellent schools. Office: 8 rooms equipped and furnished. Home: 8 rooms. Central air-conditioning. Retiring. Will introduce patients. Price over $100,000.00 Contact Box No. 51, c/o THE JOURNAL.

FOR SALE—Woodcliff Lake, N.J., Prestige Area. Home ideally suited for professional office and home combination. Easy access major parkways; nearby hospitals. Elegant, spacious, contemporary custom home—one-of-a-kind—on 1⅓ + acres. Professionally landscaped, offering complete privacy; flagstone patio 25 x 25. 4 bedrooms (master bedroom suite on main floor), 5 bathrooms, formal dining room, living room, huge kitchen with separate breakfast room. Magnificent panelled family room with beamed cathedral ceiling; raised hearth fireplace, Italian marble, floor to ceiling. Spacious central hallway, separate laundry and utility room on main floor. Finished playroom 40 x 40 and wine cellar. 3 car garage, broad circular driveway with access to two streets—corner property; large parking area. 2 zone A/C, heat and electronic dust removers; hi fi, stereo and intercom throughout. Many walk-in closets, oversized rooms. Too many custom extras to mention. Must be seen to be appreciated. Priced for immediate sale by owner. Principals only $183,900. Call (201) 391-1745.

OFFICE SPACE—Jackson, Ocean County, Jackson Township. Now renting. Individual buildings being remodeled for professional center. Currently, two Obstetricians, Pediatrician and an Internist occupy the space. Additional space available for rental or condominium. Call (201) 892-9499.

OFFICE SPACE—Ocean County; Small space with some x-ray equipment for part-time office, which could lead to full time practice. Wrtie Box No. 50, c/o THE JOURNAL.

OFFICE SPACE—Princeton Hopewell area. Ideal for family practitioner. 1000-2000 square feet. Call (609) 466-1569 or write John J. Orlando, Route 31, Hopewell, New Jersey 08525.

OFFICE SPACE—Ramsey; Serving population area of approximately 85,000. Need solo medical and dental specialist for multi-specialty building. Near all cultural and recreational facilities. 30 minutes to New York City. (201) 529-3998.

OFFICE SPACE—Roseland; An outstanding opportunity for a family practitioner or internist to share an office in Roseland, New Jersey with internationally renown physicians. Excellent academic and financial arrangements with no financial out-lay needed. Please send your curriculum vitae to Dr. Leon Smith, 190 Eagle Rock Avenue, Roseland, New Jersey 07068.

OFFICE SPACE—Modern building with x-ray, laboratory, five other practitioners. "Cheap" Less than going rents in area. Contact Box No. 36, c/o THE JOURNAL.

BIOFEEDBACK AND TREATMENT CENTER—Individualized, medically supervised, treatment of stress-related conditions (tension and migraine headaches, insomnia, hypertension, bruxism, anxiety), and drug-free management of hyperactivity in children. For information phone (201) 568-0122 or write 41 Park Place, Englewood, N.J. 07631.

Information for Members—RATES:—$5.00 per insertion up to 25 words; 10 cents each additional word. Payable in advance. WORD COUNT: Count as one word all single words, two initials of a name, each abbreviation, isolated numbers, groups of numbers, hyphenated words. Count name and address as five words, telephone number as one word, and "Write Box No. 000, c/o THE JOURNAL" as six words. COPY DEADLINE: Fifth of preceding month.

use the Experienced Laboratory

SM

SOUTH MOUNTAIN
LABORATORIES • INC

for CONTROL-RESEARCH

SERVICES IN

- **PHARMACOLOGY**
- **ENDOCRINOLOGY**
- **TOXICOLOGY**
- **COSMETICS**
- **BIO-ASSAY**
- **PLASTIC IMPLANT**
- **HUMAN SKIN TESTING**
- **BIOAVAILABILITY**

380 Lackawanna Pl., South Orange, N.J. 07079 (201) 762-0045

•

1102 Industrial Parkway, Bricktown, N.J. 08723 (201) 458-0031

"Prescribe With Confidence"

KATES BROS.

SCIENTIFIC SHOE FITTING

A Shoe and Last for Every Foot

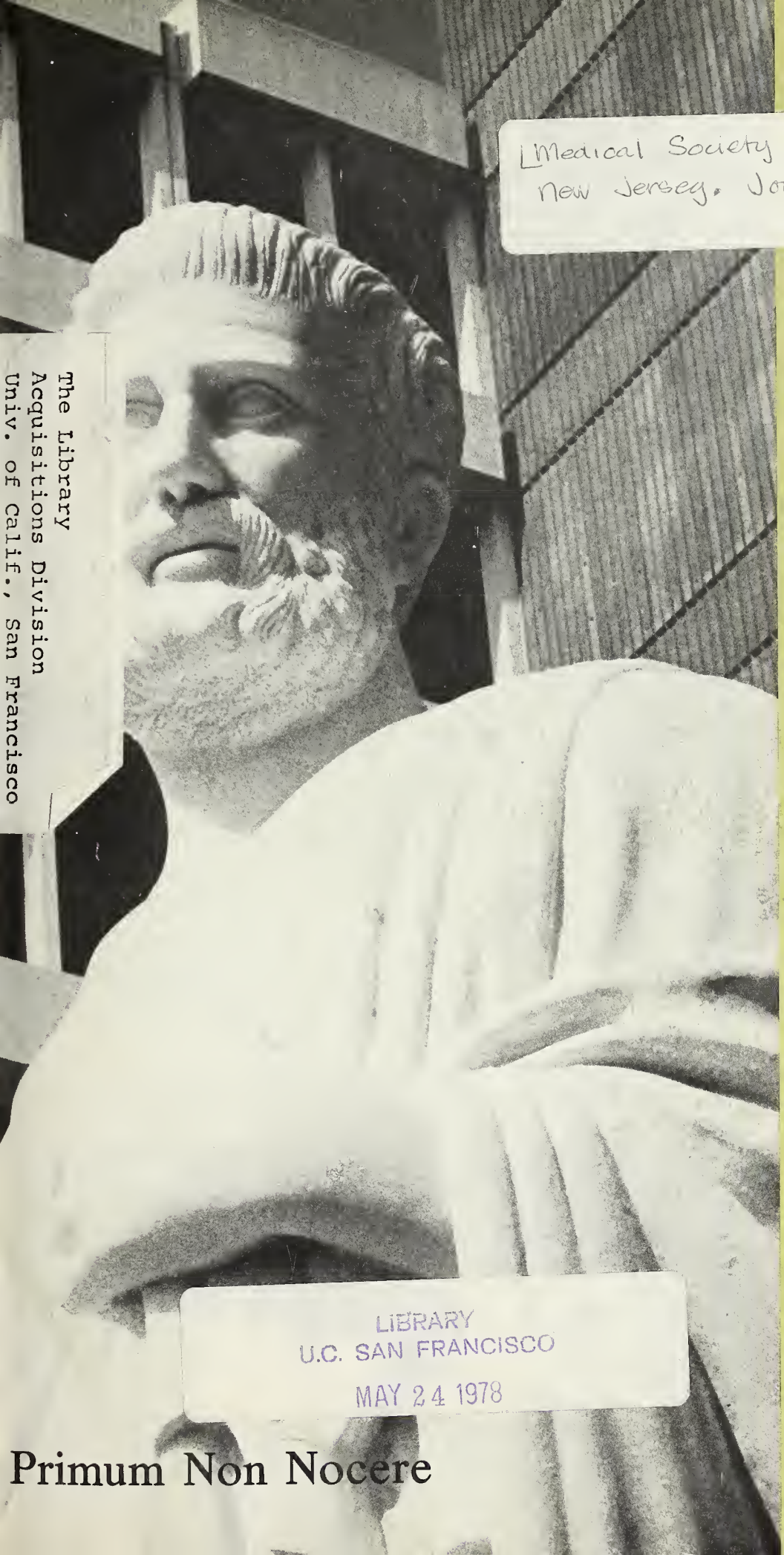
Barefoot Freedom

SOLD ON Rx ONLY
CORRECTIVE FOOTWEAR FOR MEN — WOMEN — CHILDREN
OUTFLAIR SHOES FOR CLUB FEET

400 MAIN STREET **HACKENSACK, N. J.**

201-487-1779

Dennis Brown Splints — In all sizes — Carried in stock
CUSTOM SHOE SHOP ON PREMISES



The Library
Acquisitions Division
Univ. of Calif., San Francisco

Medical Society of
New Jersey. Journal.

May 1978

Journal of New Jersey

LIBRARY
U.C. SAN FRANCISCO
MAY 24 1978

Primum Non Nocere

Patellofemoral Contact in Human Knees
Ching-Jen Wang, M.D.

Melanoma of Skin
D. Stein, M.D., et al.

Protein-Supplemented Starvation
S. Sell, B.S., et al.

Pseudotumors after Injection of Procaine PVP
Simon Soumerai, M.D.

Complete Table of Contents on Page 374

Check List For Savings

Under The Medical Society of New Jersey

Endorsed Insurance Plans

NEW HIGHER LIMITS	$4600 Monthly Accident and Health
TAX DEDUCTIBLE PREMIUM	$5,000 Professional Overhead Expense Plan
INCREASED FROM $150,000	$250,000 Term Life Insurance
$250,000 COVERAGE	Quarter-Million-Dollar Major Expense Plan
HIGH LIMITS— LOW COSTS	$200,000 Six Point High-Limit, Accidental Death, Dismemberment, Total Disability
EXTRA MONEY WHEN HOSPITALIZED	$60 a day Hospital Money-Indemnity Plan
$7500—15%	$7500 Tax-deductible KEOGH Plan and Corporate Master Plan

CHECK THIS LIST AGAINST YOUR COVERAGES . . . ASK FOR FREE NO-OBLIGATION INFORMATION ABOUT THE NEW MONEY-SAVING PLANS!

E. & W. BLANKSTEEN AGENCY, INC.

E. & W. BLANKSTEEN

75 MONTGOMERY STREET • JERSEY CITY, N.J. 07302

(201) 333-4340

A Difference in Theophylline Therapy

micro-pulverized

BRONKODYL® Capsules

brand of theophylline, USP anhydrous



- **Blood levels as fast as an elixir**
- **With minimal gastric irritation***

*Please see complete prescribing information, a summary of which follows.

DESCRIPTION:
Each green and white hard gelatin capsule contains theophylline USP anhydrous, 200 mg., in a micro-pulverized form. Each brown and white hard gelatin capsule contains 100 mg. The elixir contains 80 mg. theophylline per 15 ml. in a 20% alcohol elixir (approximately 20 calories, 0.9 gm carbohydrate per tablespoonful).

ACTION: Theophylline is a methylxanthine which relaxes the smooth musculature of the bronchioles through its inhibition of the conversion of cyclic adenosine monophosphate to adenosine monophosphate by phosphodiesterase. It also has diuretic, cardiotonic, and CNS stimulant effects.

INDICATIONS: Bronkodyl is indicated for symptomatic relaxation of bronchiolar spasm in the chronic obstructive bronchopulmonary diseases; e.g., bronchial asthma, chronic bronchitis and pulmonary emphysema.

CONTRAINDICATIONS: Bronkodyl is contraindicated in persons known to have had serious idiosyncratic responses to theophylline, its salts, or the other methylxanthines, theobromine, or caffeine and may be contraindicated in peptic ulcer.

WARNINGS: All methylxanthines should be used with caution in children and in others who are currently taking bronchodilator products, especially in rectal dosage form, which may contain theophylline or related drugs.

USAGE IN PREGNANCY: Although theophylline has been used for many years, with no evidence of adverse fetal effect or teratogenicity, its safety in pregnancy has not been established. Therefore use of Bronkodyl during lactation or in women of childbearing potential requires that possible benefits of the drug be weighed against possible hazards to fetus or child.

PRECAUTIONS: Bronkodyl should be used with caution in patients with cardiac or circulatory disease.

ADVERSE REACTIONS: Gastrointestinal: Epigastric distress, nausea, vomiting. Cardiovascular: palpitations. CNS: Insomnia, restlessness, irritability, convulsion.

DOSAGE AND ADMINISTRATION: Adults: Usual dosage of Bronkodyl is 200 mg. every 6 hours (four doses in each 24 hours). This dosage may be adjusted to reflect individual clinical response as an indication of slow or rapid metabolism of the drug. If adverse reactions are encountered, each dose may be reduced, or the interval between doses may be lengthened, or both. If clinical response is not satisfactory, indicating possible rapid inactivation of the drug, dosage may be gradually increased to achieve the desired response. In some instances of either too slow or too rapid metabolism, plasma levels of theophylline should be determined and dosage adjusted accordingly to achieve levels above 10 mcg/ml, but not to exceed 20 mcg/ml.

Dosage in Children: Usual dosage should be based on administration of 10 mg per kg per 24 hours, divided in 4 doses per day, given every 6 hours. As this may not be possible with use of the capsules, Bronkodyl elixir may be used. Theophylline saliva levels (approximately 60% of simultaneous blood levels), may facilitate dosage adjustments, especially in children, to obtain appropriate response.

HOW SUPPLIED:
Bronkodyl 100 mg., brown and white capsules in 100's, Code #1831.
Bronkodyl 200 mg., green and white capsules in 100's, Code #1833.
Bronkodyl Elixir, 80 mg. per 15 ml, in pints, Code #1835.

BREON LABORATORIES INC.
90 Park Avenue, New York, N.Y. 10016

THE MEDICAL SOCIETY OF NEW JERSEY

Founded July 23, 1766

Officers and Trustees

PRESIDENT
Frank R. Begen, M.D. (Bergen) — Teaneck
PRESIDENT-ELECT
Charles S. Krueger, M.D. (Burlington) — Mount Holly
FIRST VICE-PRESIDENT
Alfred A. Alessi, M.D. (Bergen) — Hackensack
SECOND VICE-PRESIDENT
George L. Benz, M.D. (Essex) — Newark
IMMEDIATE PAST-PRESIDENT
John S. Madara, M.D. (Salem) — Salem
SECRETARY
Arthur Bernstein, M.D. (Essex) — Maplewood
TREASURER
Rudolph C. Gering, M.D. (Mercer) — Trenton

Trustees

CHAIRMAN
James S. Todd, M.D. (1980) (Bergen) — Ridgewood
Meyer L. Abrams, M.D. (1979) (Burlington) — Willingboro
Augustus L. Baker, Jr., M.D. (1979) (Morris) — Dover
Edward G. Bourns, M.D. (1978) (Union) — Westfield
Frank Campo, M.D. (1978) (Mercer) — Trenton
S. Thomas Carter, Jr., M.D. (1978) (Camden) — Collingswood
John J. Crosby, Jr., M.D. (1978) (Hudson) — Jersey City
Anthony P. DeSpirito, M.D. (1979) (Monmouth) — Neptune City
Sherman Garrison, M.D. (1980) (Cumberland) — Bridgeton
Armando F. Goracci, M.D. (1979) (Gloucester) — Woodbury
William Greifinger, M.D. (1978) (Essex) — Belleville
Richard E. Lang, M.D. (1978) (Passaic) — Passaic
Howard D. Slobodien, M.D. (1978) (Middlesex) — Perth Amboy
Frank Y. Watson, M.D. (1980) (Essex) — Montclair

Councilors

FIRST DISTRICT
(Essex, Morris, Union, and Warren Counties)
Merton L. Griswold, Jr., M.D. (1978) — Plainfield
SECOND DISTRICT
(Bergen, Hudson, Passaic, and Sussex Counties)
John L. Olpp, M.D. (1980) — Englewood
THIRD DISTRICT
(Hunterdon, Mercer, Middlesex, and Somerset Counties)
Albert F. Moriconi, M.D. (1979) — Trenton
FOURTH DISTRICT
(Burlington, Camden, Monmouth, and Ocean Counties)
Frederick W. Durham, M.D. (1978) — Haddonfield
FIFTH DISTRICT
(Atlantic, Cape May, Cumberland, Gloucester, and Salem Counties)
John A. Surmonte, M.D. (1980) — Penns Grove

AMA Delegates

Louis F. Albright, M.D. (1977) — Spring Lake
George L. Benz, M.D. (1978) — Newark
Karl T. Franzoni, M.D. (1978) — Trenton
Frank J. Hughes, M.D. (1978) — Camden
Emanuel M. Satulsky, M.D. (1978) — Elizabeth
James S. Todd, M.D. (1979) — Ridgewood
Robert E. Verdon, M.D. (1978) — Cliffside Park

May 1978

Publication Committee

Daniel B. Roth, M.D., *Chairman*
Julio C. del Castillo, M.D.
John F. Marshall, M.D.

Editor

Arthur Krosnick, M.D.

Associate Editors

William A. Dwyer, Jr., M.D.
Bernard D. Pinck, M.D.
Richard H. Rapkin, M.D.

Assistant Editor

Marjorie D. Treptow

Advertising Manager

Bettie N. Cookson

Executive Director

Vincent A. Maressa

Executive Director Emeritus

Richard I. Nevin

Manuscript Review Board

Jerome Abrams, M.D.
Francis P. Chinard, M.D.
Alfonse Cinotti, M.D.
Arthur Goldfarb, M.D.
Martin Goldfield, M.D.
Robert A. Goldstone, M.D.
M. Jay Goodkind, M.D.
Murray Kahn, M.D.
Sidney Ketyer, M.D.
Bernard J. Koven, M.D.
Henry R. Liss, M.D.
Hugh F. Luddecke, M.D.
Geobel A. Marin, M.D.
Murray Nussbaum, M.D.
Victor Parsonnet, M.D.
Leonard Policoff, M.D.
Irwin Pollack, M.D.
Edwin L. Rothfeld, M.D.
Benjamin Rush, M.D.
Mark M. Singer, M.D.
Leon G. Smith, M.D.
Sheldon D. Solomon, M.D.
Lloyd N. Spindell, M.D.
A. Arthur Sugerman, M.D.

Published monthly (since 1904), under direction of the Committee on Publication, by The Medical Society of New Jersey, 315 West State St., Trenton, N.J. Printed in East Stroudsburg, Pa. by the Hughes Printing Co. Whole number of issues 885. Member's subscription ($5) is included in Society dues. Rates for nonmembers, $10; outside USA add $4 for postage. Single copies, $1. Address communications to *The Journal,* MSNJ, P.O. Box 904, Trenton, N.J. 08605 (609) 394-3154. Second class postage paid at Trenton, N.J. and additional entry office.

Copyright 1978 by The Medical Society of New Jersey.

Follow the Double Red Arrow...



. . . to easier claims handling for out-of-state subscribers. When you see the double red arrow on a subscriber's ID card, it means:

- **you don't have to bill the subscriber directly.**
- **you don't have to fill out unfamiliar claim forms or work with another Blue Shield Plan.**
- **you don't have to wait for payment.**

You do get to use the familiar Blue Shield of New Jersey Service Report. You fill it out as usual, with one exception: in box #3 provided for the subscriber's Identification Number, you first put in the letter N and the numbers that appear inside the red arrow. Then you put in the ID number. That's it. Send the claim to us, and we'll pay you your usual and customary fees for eligible services. And, payment is assured as long as you use reasonable caution in identifying the patient.

For more details, see Section IV of your Blue Shield Office Manual. Then look for the double red arrow. You'll be glad you did!



Blue Shield
of New Jersey

May 1978

Journal of the Medical Society of New Jersey

America's First Medical Society

EDITORIALS

378 Primum Non Nocere

378 Humanity, Not Fakery

379 Decision-Making in Medicine

379 212th Annual Meeting

ORIGINAL ARTICLES

383 Patellofemoral Contact in Human Knees
Ching-Jen Wang, M.D., Trenton

391 Melanoma of the Skin in New Jersey
D. Stein, M.D.; I. S. Thind, M.D., D.P.H.; D. B. Louria, M.D., Newark

394 Countercurrent Immunoelectrophoresis in Diagnosis of Hemophilus Influenzae Type b Meningitis
J. L. Murillo, M.D.; K. Maigetter; J. A. Titelbaum, M.D., Newark

399 Protein-Supplemented Starvation
S. Sell, B.S.; M. K. Brush, Ph.D., New Brunswick; H. N. Jacobson, M.D Piscataway; T. B. Van Itallie, M.D., New York

CASE REPORTS

407 Pseudotumors of Arm after Injections of Procaine PVP
Simon Soumerai, M.D., Voorhees

409 Mobile Bronchial Papilloma Spontaneously Expectorated
A. M. Memon, M.D.; D. K. Ramisetti, M.D.; L. F. Ayvazian, M.D., East Orange

412 Early Diagnosis of Acoustic Neuromas—Key to Excellent Results
O. R. Hubschmann, M.D.; R. W. Countee, M.D., East Orange; A. J. Krieger, M.D., Newark

416 **THERAPEUTIC DRUG INFORMATION**

418 **PEDIATRIC BRIEFS**

DOCTORS' NOTEBOOK

421 Trustees' Minutes: March 19, 1978

426 Report from the Foundation

426 CMDNJ Notes

426 Physicians Seeking Location in New Jersey

428 **LETTERS TO THE JOURNAL**

431 **CME INFORMATION**

432 **CME CALENDAR**

435 **OBITUARIES**

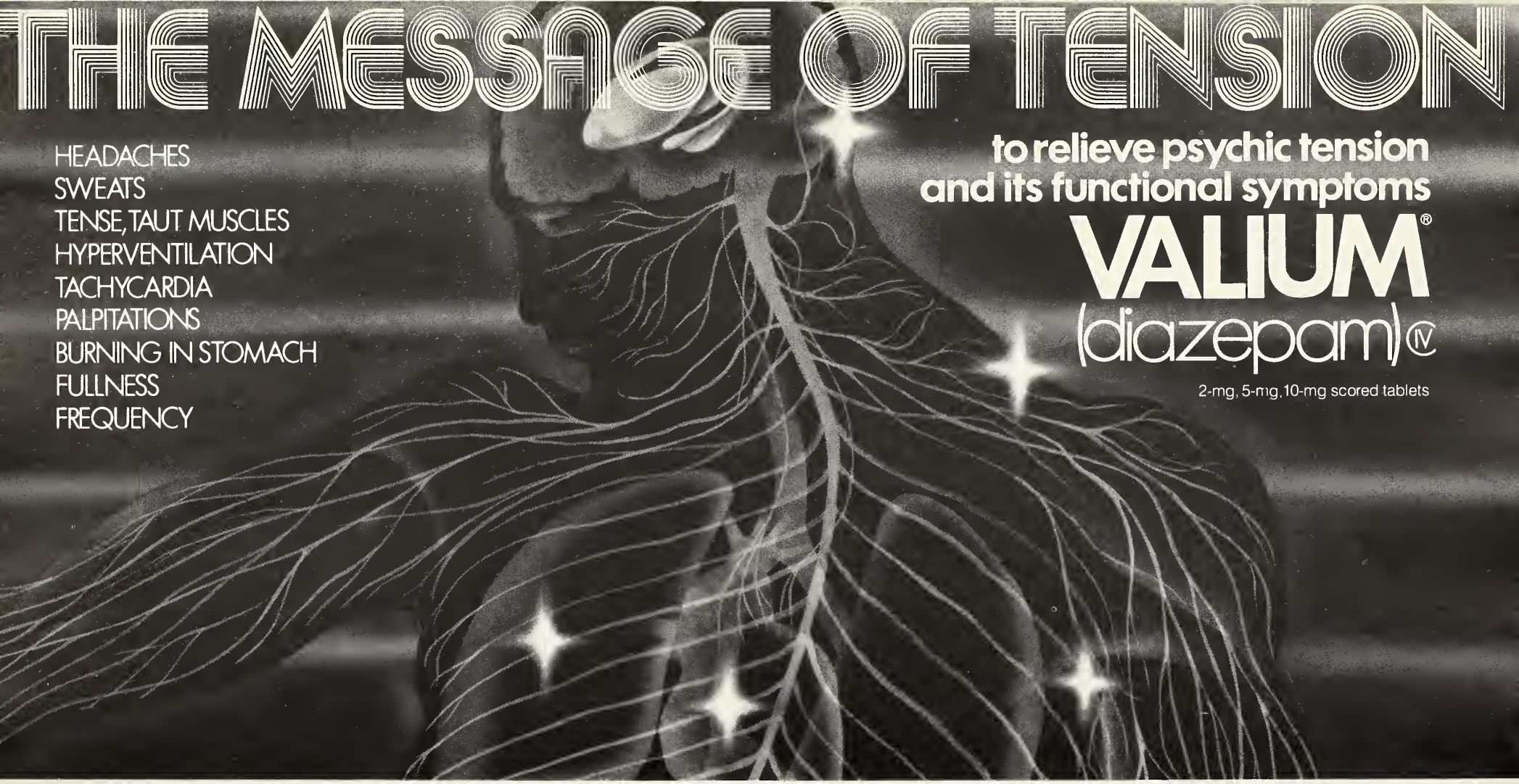
436 **BOOK REVIEWS**

Cover

The photograph used on the cover was supplied by the office of External Relations, College of Medicine and Dentistry of New Jersey, Newark. The statue of Hippocrates stands at the main entrance to Rutgers Medical School, Piscataway (seen in the background). It was designed and executed by Kostas Georgakas from a solid piece of white marble imported from Greece; it was a gift to the College from Peter T. Sideris of Woodbridge.

Volume 75
Number 5

Pages 371-442



VALIUM®(diazepam)

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).
The effectiveness of Valium in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should period-

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals

Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or over-

hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

ROCHE
Roche Laboratories
Division of Hoffmann-La Roche Inc.

THREE-IN-ONE THERAPY AGAINST TOPICAL INFECTION



Neosporin® Ointment

(Polymyxin B-Bacitracin-Neomycin)

This potent broad-spectrum antibacterial provides overlapping action to help combat infection caused by common susceptible pathogens (including staph and strep). The petrolatum base is gently occlusive, protective and enhances spreading.

Neomycin

Staphylococcus
Haemophilus
Klebsiella
Aerobacter
Escherichia
Proteus
Corynebacterium
Streptococcus
Pneumococcus

Bacitracin

Staphylococcus
Corynebacterium
Streptococcus
Pneumococcus

Polymyxin B

Pseudomonas
Haemophilus
Klebsiella
Aerobacter
Escherichia

In vitro overlapping antibacterial action of Neosporin® Ointment (polymyxin B-bacitracin-neomycin).

Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Neosporin® Ointment

(Polymyxin B-Bacitracin-Neomycin)

Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

Information for Readers and Contributors

The Journal, the official organ of the Medical Society of New Jersey is published monthly under the direction of the Committee on Publication. Released the first week of the month, a copy is sent to each member of the Society. The goals of *The Journal* are educational and informational. All material published in *The Journal* is copyrighted by the Medical Society of New Jersey.

CONTENT

The educational content of each issue appears as original *scientific articles*, based on research, original concepts relative to epidemiology of disease, and treatment methodology; *case reports*, based on unusual clinical experiences; *review articles; clinical notes*, succinct items on some aspect or new observation or technique of a case experience; and *special articles*, which may include evaluations, policy and position papers, and reviews of non-scientific subjects. Material submitted here is for exclusive publication in *The Journal*. Upon request of the author, the Committee on Publication may give permission to authors of original material to reprint articles elsewhere with appropriate credit to *The Journal*. The principal aim in the preparation of contributions should be relevance to diagnosis and treatment and to education of patients and professionals. Preference will be given to professional authors from New Jersey and to out-of-state lecturers who submit a suitable manuscript based on a presentation made in New Jersey.

ASSIGNMENT OF COPYRIGHT

In compliance with the Copyright Revision Act of 1976 (effective January 1, 1978) a transmittal letter or a separate statement accompanying material offered to *The Journal* of the Medical Society of New Jersey must contain the following language and must be signed by *all* authors:

"In consideration of *The Journal* of the Medical Society of New Jersey taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to the Medical Society of New Jersey, in the event that such work is published in *The Journal, MSNJ.*"

Individuals, universities, libraries, and other non-profit organizations will be permitted to photocopy articles in *The Journal* for non-commercial, educational purposes.

SPECIFICATIONS

Manuscripts—Manuscripts must be typewritten double-spaced on 8-1/2 by 11" paper with margins of at least one inch. The original and one copy should be submitted to the Editors. Authors must understand that the material submitted is for the exclusive use of *The Journal* and will not be published elsewhere except in abstract form or with the consent of the Committee on Publication. Statistical methods used in articles should be identified. Acknowledgments of aid in preparation of manuscripts will not be made, except for specific preparation of an essential part of the manuscript (such as statistical data or special photographs).

Tables and Illustrations—Tables must be typewritten, double-spaced on separate 8-1/2 by 11" sheets. Each table must have a title and number. Symbols for units should be confined to column headings, and abbreviations, properly explained, should be kept to a minimum. Illustrations or figures should be of professional quality black-and-white glossy prints. They should be unmounted and not damaged by staples or paper clips. The name of the author, figure number, and the top of the figure should be noted on a label attached to the back of each illustration. Where photographs of patients are used, the subjects should not be identifiable or publication permission, signed by the subject or responsible person, must be included with the photograph. Material taken from other publications must give credit to the source; written permission for republication from the original publisher must be submitted. The cost of color photographs must be borne by the author.

Title Page—The title page should include the full name, degrees, and affiliations of all authors, and the name and address of the author to whom reprint requests should be sent.

Summary—The summary of the article should not exceed 250 words. It should contain the essential facts in such a form as to be understandable without reference to the text. Meticulous writing of this section is essential.

Abstract—The author should submit a 50-word abstract to be used at the beginning of the article.

Drug Names—Generic names should be used with proprietary names indicated parenthetically or as a footnote with the first use of the generic name. Proprietary names of devices should be indicated by the registration symbol—®.

References—References, which should not exceed 35 citations except in review articles, should be cited consecutively in the text by numbers in parentheses at the end of the sentence. The reference list should be typed double-spaced on separate 8-1/2 by 11" sheets in the numerical order in which they are first cited in the text. The style of references is that of *Index Medicus*.

Examples:

Goldwyn RM: Subcutaneous mastectomy. *J Med Soc NJ* 74:1050-1052, 1977.

Dixon WJ, Massey FJ: *Introduction to Statistical Analysis*. New York, McGraw-Hill, 1969, pp 00-00.

Accident Facts. Chicago, Illinois, National Safety Council, 1974.

PUBLICATION POLICY

Receipt of each manuscript will be acknowledged and a copy delivered to the Editor who refers the paper to one or more members of the Manuscript Review Board, who render an opinion to the Editor. The final decision is reserved for the Editor. No direct contact between the reviewers and the authors will be permitted, but authors will be informed of the reviewers' comments. The publication lag for original articles may be six months or more. Galley proofs will be submitted to the author for correction of typographical errors. Editorial changes which are made in the interest of clarity or good grammar may not be altered by the author. Reinsertion of redundant material deleted by the Editor is not permitted.

REPRINTS

Reprints may be ordered after the author is notified that his article has been selected for a specific issue of JMSNJ. A check for the cost of reprints including remake charge if order is received after due date must accompany the order.

COMMUNICATIONS

All communications should be sent to the Editor, *The Journal*, MSNJ, P.O. Box 904, Trenton, New Jersey 08605.

EDITORIALS

Primum Non Nocere

Available records make the profession of medicine a quite venerable but not the oldest profession. Documentation extends over a period of at least four thousand years but it is probably only during the last 50 to 100 years or so that we have been able to provide significant benefits to our clientèle. Thus, a cost-benefit analysis probably would show that the oldest profession had been considerably more efficient than we have up to this recent period. In the course of these last 50 to 100 years, we have passed from a diagnostic, prognostic, non-interfering approach to one in which the diagnostic hurdles are jumped rapidly and interference is increasingly prompt and vigorous. Major benefits have accrued to our patients in the form not only of better management but on occasion of cures. This progress, which is continuing at an increasing pace, is the direct result of the tremendous research activity, at both the basic and the clinical levels, in which this country unquestionably has played a role of leadership. Many clinical trials have been necessary and these have been controlled increasingly well so that the introduction of a new treatment regimen or of a new drug is accompanied by precautions which 25 years ago would not even have been entertained. Safeguards have been introduced for the patients now voluntarily participating in clinical trials and the concept of "advised consent" and its necessity are well known and recognized. We are eliminating old measures which have had little or no effectiveness, we are continuously reassessing current measures and we are establishing the validity of new experimental approaches and procedures.

When it comes to these new measures, neither legally nor morally should we as individual physicians "try" them on patients willing or not. Enthusiasm of the physician may produce improvement through the *placebo* effect where the measures themselves are innocuous. But other measures may result in damage or even in death. Flaubert in his classic novel *Madame Bovary* described the disastrous career of the pitiable physician clod who was Emma's husband. With more enthusiasm than good sense he persuaded a patient with a club foot to submit to a tenotomy and then to wear a very tightly fitting leather brace in order to correct the malformation. The patient's leg became gangrenous and had to be amputated.

There is no room in the practice of medicine for this kind of mistreatment, well meaning and well intentioned though it may have been in its origin. If there is virtue in a proposed treatment there must be enough evidence from the laboratory or from trials in experimental animals to justify in patients well-designed controlled trials which have received prior approval from appropriate bodies, institutional and federal. Results so obtained can be examined and further use of the proposed treatment determined on the basis of the evidence available.

But to undertake a treatment known to be of little if any benefit and to have been harmful to others is to violate a basic principle of medicine: most important of all, do no harm.

Francis P. Chinard, M.D.

Humanity, Not Fakery

In his editorial, Professor Chinard beautifully and concisely has reminded us of a primary consideration we physicians never must forget. Without mentioning them by name, he has given us guidance to our position on procaine PVP, laetrile, and the host of existing and future "remedies" of the same ilk to which our patients are or will be exposed. The "siren song" of the purveyor of nostrums – with and without degrees in medicine, osteopathy, naturopathy, chiropractic, or anything else – does nothing but lure the victim down a path of false hope, waste his money, and alienate him from legitimate health practitioners. The false prophet who promises a nirvana he cannot deliver should be "stoned" not legitimized by foolish and phobic legislators who want to be "nice guys."

There are alternatives for the terminal patient, which are kind, useful, and available. The hospice approach to the dying patient is one such method.

Physicians must become prepared to deal with the dying patient and his family with humanity, not nostrums. A.K.

Decision-Making in Medicine

What tests should I order? What therapy is indicated? Should I ask for consultation? When should my patient be discharged? These and innumerable other decisions are part of the daily life of physicians. They are at the core of what a physician does. His ability to answer them appropriately is the reason for his existence.

How does a physician make his decisions? This question has been looked at with great care and often has been dissected and analayzed in the jargon of statistics and mathematics. This may not be particularly helpful to the clinician. The process of decision-making may be more important, in the long run, than the individual outcome. That is, if the process usually is correct, the likelihood is that the outcome usually will be appropriate.

In patient care the decision to intervene therapeutically is considered. Most of the time pressures conspire to encourage treatment (patient's wishes, lack of time for explanation, need to *do* something). A decision to do nothing (observe) is often not a positive decision but rather the result of a failure to decide. It is essential to make decisions and to make them with as much information and help as one reasonably can get. The way one makes decisions is the critical issue. The fact that a particular decision is correct does not validate the process. Over the course of time, if the process is proper, the majority of decisions will be good for the patient.

What is the process? Oversimplified it is self-questioning, or an asking of "why" at each step. In teaching situations the why often is asked by the student. Why did you admit the patient? Why did you start this therapy? The careful and competent physician-teacher already has asked these questions of himself and can give the answer. If the physician is surprised by the question, it implies that either the question is not pertinent or wasn't considered. The physician-teacher's response often reflects his approach to decision-making. The non-teaching physician may be annoyed at having to justify his decisions. If his response is a projection of his own failure to consider the question, then it will be valuable as soon as he recognizes it as a defense. The appropriate response will be to explain *how* he made the decision. This will expose the process to himself and will allow adjustment if the process is seen to be faulty. It will be self-correcting.

Physicians in group practices may not need students to help them understand their decision process. They can ask each other the questions. In a group practice, for example, the review of antibiotic use by another associate has led to a significant improvement of such use.

My personal experience in education supports these concepts. Most of the time spent rounding with medical students is spent in discussion of "whys." "What did you do? Why did you do it?" is followed by considerable discussion of the latter—the process of decision-making. The result of such training, it appears, is a physician who has problem-solving ability rather than a knee-jerk-rote response to the issues of therapy.

It is, in the long run, better to make the wrong decision for the right reason than vice versa. More patients will be served better by the former than the latter. Physicians should pay more attention to their decision-making process, always should question themselves, should become helpful to their peers by questioning them, and should encourage others to "interfere" with their care. All of this will improve the decision-making process which ought to improve the quality of care.

Richard H. Rapkin, M.D.

212th Annual Meeting

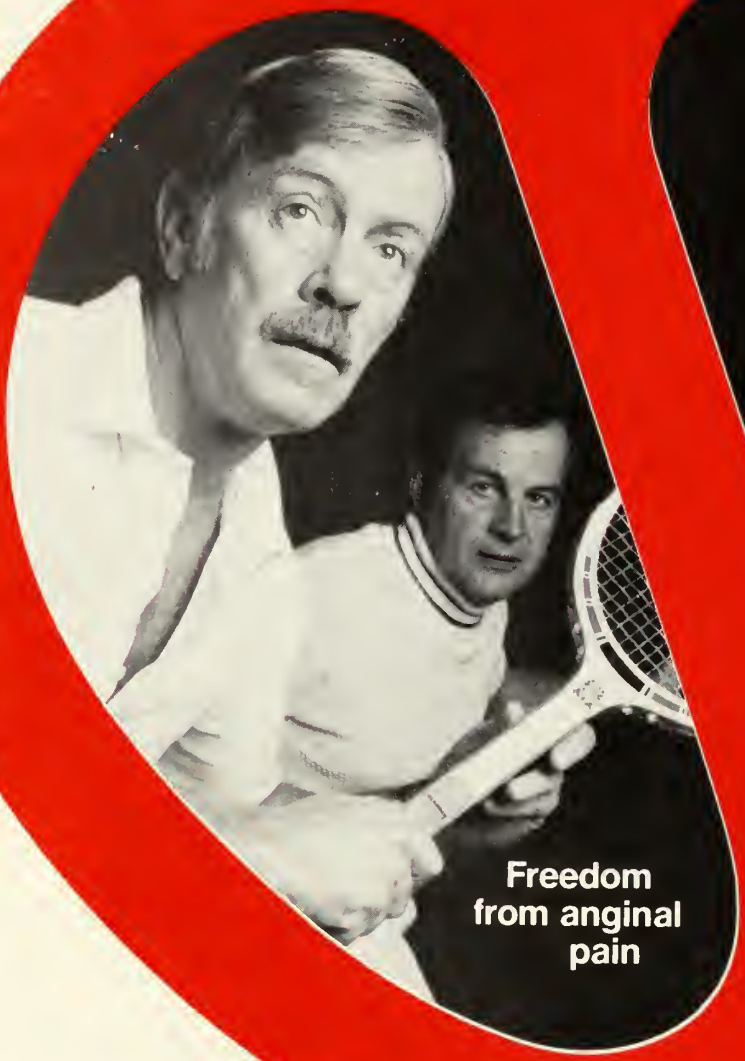
The 1978 Annual Meeting of the Medical Society of New Jersey will have come and gone by the time this issue reaches your desk. It was a year of transition for this event because of prior commitments and the beginning of the rebirth of Atlantic City. There was no exhibit area, but continuing medical education experiences took place nevertheless. The Governor's Conference, the Trauma Oration, the Prayer Breakfast, the film theater, and a full schedule of lectures were held.

The business of the Society was carried forward through the House of Delegates and the Reference Committee meetings, and the social events were not forgotten.

The July *Journal* previously had been the Transactions Issue, devoted entirely to the business of the Society's Annual Meeting. This year that information will be published as a separate supplement, probably in July. Those readers who did not attend the Annual Meeting are urged to read this material in detail and to discuss any questions with your county delegates.

A.K.

Angina freedom fighter...





1. Taken sublingually, Cardilate® (erythrityl tetranitrate) begins to work within 5 minutes, eliminating or reducing frequency and severity of anginal pain for up to two hours.
2. Fear of pain, a major deterrent to achieving acceptable (and desirable) levels of activity, including sex, may be allayed with Cardilate. Effective prophylaxis and improved exercise tolerance help toward normalizing the lives of anginal patients.

Cardilate®
(erythrityl tetranitra

Cardilate® (erythrityl tetranitrate)
INDICATIONS: For the prophylaxis and long-term treatment of patients with frequent or recurrent anginal pain and reduced exercise tolerance associated with angina pectoris, rather than for the treatment of the acute attack of angina pectoris, since its onset is somewhat slower than that of nitroglycerin.

PRECAUTIONS: As with other effective nitrites, some fall in blood pressure may occur with large doses.

Caution should be observed in administering the drug to patients with a history of recent cerebral hemorrhage, because of the vasodilation which occurs in the area. Although therapy permits more normal activity, the patient should not be allowed to misinterpret freedom from anginal attacks as a signal to drop all restrictions.

SIDE EFFECTS: No serious side effects have been reported. In sublingual therapy, a tingling sensation (like that of nitroglycerin) may sometimes be noted at the point of tablet contact with the mucous membrane. If objectionable, this may be mitigated by placing the tablet in the buccal pouch. As with nitroglycerin or other effective nitrites, temporary vascular headache may occur during the first few days of therapy. This can be controlled by temporary dosage reduction in order to allow adjustments of the cerebral hemodynamics to the initial marked cerebral vasodilation. These headaches usually disappear within one week of continuous therapy but may be minimized by the administration of analgesics.

Mild gastrointestinal disturbances occur occasionally with larger doses and may be controlled by reducing the dose temporarily.

HOW SUPPLIED: 10 mg chewable scored tablets, bottle of 100. Also 5, 10 and 15 mg oral/sublingual scored tablets in bottles of 100. 10 mg oral/sublingual scored tablets also supplied in bottles of 1,000.

Also available: Cardilate®-P brand Erythrityl Tetranitrate with Phenobarbital* Tablets (Scored).

(*Warning—may be habit-forming.)



Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

NEW YORK FERTILITY RESEARCH FOUNDATION, INC.

For the Investigation of
Problems of Human Infertility

The Institute provides a complete diagnostic and consultation service for infertile couples. Investigations are conducted by well-known specialists in conjunction with consultants in the various fields of medicine related to infertility.

Patients are returned to the referring physician after appropriate studies have been made, together with a complete detailed report of the findings of the Institute and its consultants and recommendations for therapy. Literature on request.

123 East 89th Street, N.Y., N.Y. 10028

Phone: TR 6-9300

George T. Pack, M.D.
MEMORIAL CANCER SYMPOSIUM

SATURDAY, MAY 20, 1978
at NORTH JERSEY COUNTRY CLUB
584 Hamburg Turnpike
Wayne, New Jersey 07470
Tel. 684-2590
by
Greater Paterson General Hospital Medical Staff
Co-sponsored by:
George T. Pack, M.D. Medical Foundation
and
Passaic County Unit of American Cancer Society, N.J. Div., Inc.

SPEAKERS:
IRVING M. ARIEL, M.D.
JOHN CONLEY, M.D.
DAVID W. MOLANDER, M.D.
JOHN A. IANACONE, M.D.
MICHAEL DECK, M.D.
RANDOLPH GUTHRIE, M.D.

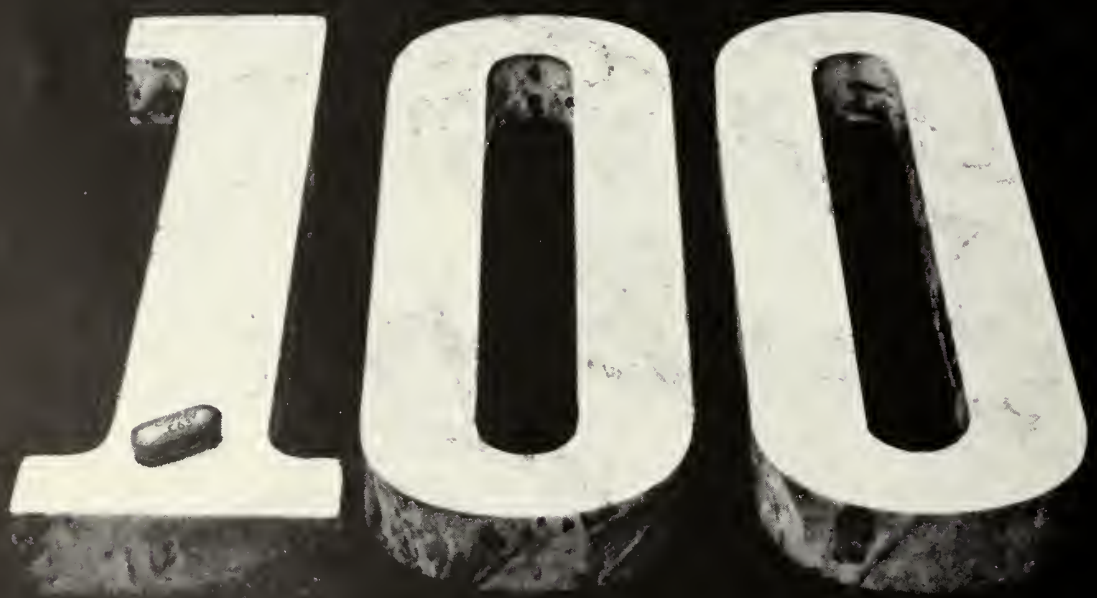
REGISTRATION: 8:30 a.m. to 9:00 a.m.
ACCREDITATION: CATEGORY I CREDITS 4
FEE: $15.00—physicians
$ 8.00—nurses, interns, residents, allied health services
Advance Registration Suggested Enrollment Limited

contains no aspirin

tablets

Darvocet-N® 100 Ⓒ IV

100 mg. Darvon-N® (propoxyphene napsylate)
650 mg. acetaminophen



Lilly

Additional information available to the profession on request from Eli Lilly and Company Indianapolis, Indiana 46206

700565

Eli Lilly and Company, Inc.
Carolina, Puerto Rico 00630

A Study of the Patellofemoral Contact in Human Knees

CHING-JEN WANG, M.D., Trenton*

The contact between the patella and femoral condyles in human knee joints is a constant pattern, with the largest and closest contact in the mid-flexion position. Pathological change of the patello-femoral joint begins within the contact zone due to mechanical wear and tear, which causes enzymatic alterations and subsequent destruction of the articular cartilage.

Degenerative arthritis of the patello-femoral joint is a common disease which usually affects older patients and is more common in females than in males. Often it causes severe disability and economic hardship. The pathogenesis of degenerative arthritis is unknown. Several studies evaluated the biochemical enzymatic changes in the arthritic condition.[1-3,9,11,15] Other authors described compression contact between the articular surfaces and postulated the hypothesis of traumatic origin.[5,10] Another concept suggested that the arthritic process was induced by non-contact between the opposing articular surfaces and postulated the nontraumatic or disuse mechanisms as the etiology of this condition.[6] Evaluation of the pathological mechanism of joint disease requires one to investigate the relationship between the components of that particular joint under normal and abnormal conditions. The patello-femoral joint presents an unusual mechanical function, which differs from other joints in the body. The patella is the largest sesamoid bone of the body and its importance in maintaining the normal function of the extensor mechanism of the knee has been studied thoroughly.[4,7,8,12,13] However, the functional behaviour of the patella in relationship to the femur in various knee positions has not been understood fully.

This study attempts to determine the contact relationship between the patella and the femur during the range of functional knee motion. It is believed that this contact relationship is an important factor in terms of the pathological mechanism of the diseases affecting that joint.

MATERIALS AND METHOD

Fourteen fresh cadaver knees were used in this study. There were eight males and six females. Five were black and nine were white. The age ranged from 14 to 72 years, and averaged 47.5 years. All studies were obtained from the right knees. None of these showed symptoms or signs related to the patello-femoral joint before death.

The patello-femoral joint was opened anteromedially. The cartilaginous articular surfaces on the femur and the patella were inspected carefully and palpated to identify the presence of abnormality. In cases showing abnormality of the articular surfaces, such as softening, discoloration, or erosion, the geometric distribution of the abnormal area was sketched carefully directly on the specimens.

The contact study was performed by a casting method.[14] Methyl methacrylate mixture was poured into the patello-femoral joint while it was in a viscous state and the knee was held in extension until the methyl methacrylate was set. Then, the patello-femoral joint was reopened and the cast model was removed. This casting technique also was performed with the knee held in various degrees of flexion: 30°, 45°,

*This study was carried out with the use of facilities of and materials from the Hospital of Special Surgery, New York City. Correspondence may be directed to Dr. Wang at 735 Hamilton Ave., Trenton, New Jersey 08629.

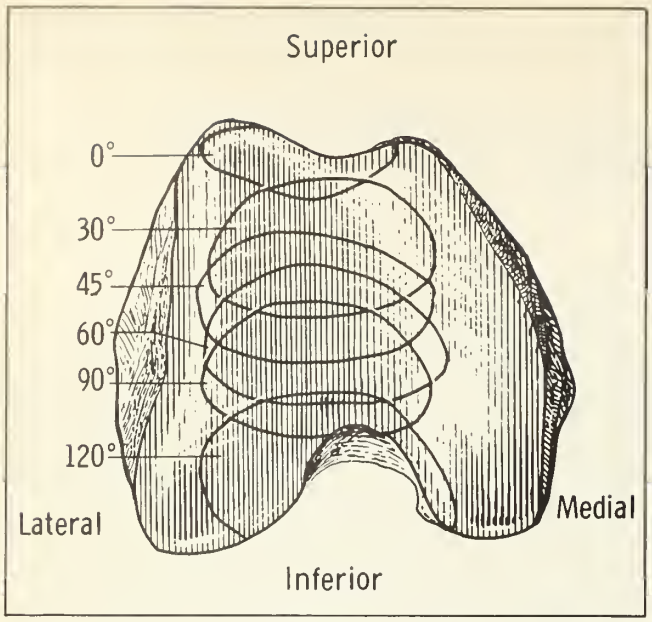


Figure 1—The overlap contact areas on the femoral surface in various degrees of knee flexion. Note the axis of the patellar movement forms an angle of 5° to 10° with the longitudinal axis of the femur.

60°, 90°, and over 90°. During the period of cement setting, the leg was supported against gravity in various degrees of flexion and no external force was applied directly to the patella. The casting technique done in this manner simulated the clinical passive range of motion under rest conditions. The same technique was used for all fourteen knees studied.

The contact area was studied by investigating the cast models. The area of non-contact was filled in with cement, whereas, the contact area was not. Therefore, the defect area on the cast models represented the area of contact between the patella and the femur. There were also areas with a thin layer of cement filling in, representing area of light or partial contact. The degree of contact is inversely proportional to the thickness of cement filling on the cast models. The thinner the cement, the greater the contact. The area of contact was measured directly by projecting the area of cement defect onto graph paper.

RESULTS

Eight knees showed normal-appearing articular surfaces on both the patellar undersurface and the femoral surface. Six showed areas of abnormality representing early degenerative arthritic changes of the articular surfaces. Three of these six abnormal cases showed unilateral involvement on the patellar undersurface only. The other three showed bilateral involvement on both the patellar undersurface and the femoral surface. All six cases under 40 years of age showed normal articular surfaces.

All specimens showed similar and fairly constant patterns of contact in various degrees of knee flexion. The patello-femoral contact area was located slightly centromedial in the axial direction and at the level of the intercondylar notch on the horizontal plane while the knee was in full flexion. In this position, part of the patellar surface was not articulating with the femoral condyles. As the knee extended slowly from the flexed position, the patello-femoral contact moved from the centromedial location to the centrolateral location in relationship to the longitudinal axis of the femur until full extension. There was an angle of approximately five to ten degrees formed by the longitudinal axis of the femur and the axis of the patellar movement throughout the entire arc of knee motion. Figure 1 shows this relationship schematically.

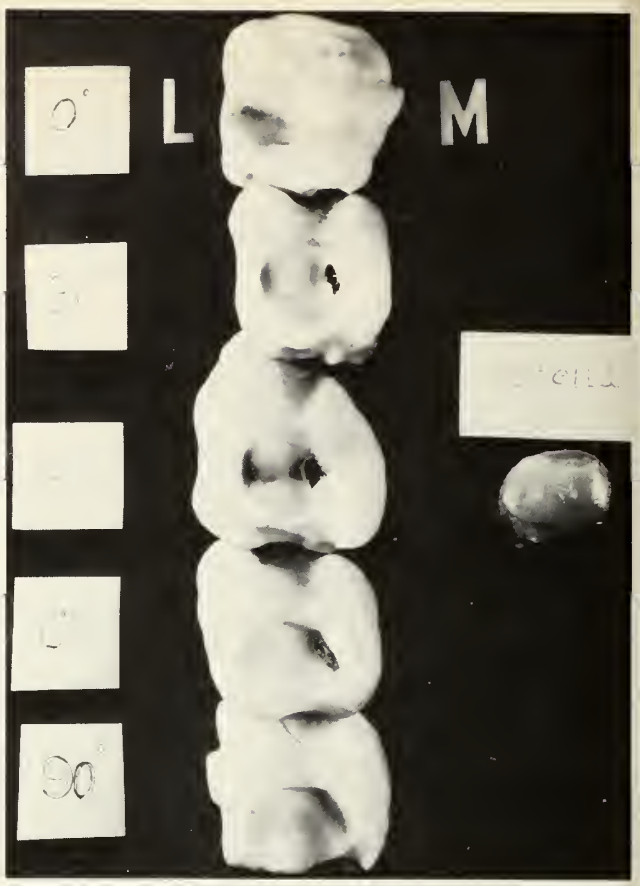


Figure 2—The cast models from one specimen. Note the differences in sizes and shapes of the contact areas in various positions. The larger area of contact occurs within the arc from 30° to 60° of knee motions. The largest contact area of hour-glass configuration occurs at 45° position.

The size and shape of the contact areas between the patella and the femur changed as the knee extended from the flexed position. This was constantly larger within the arc of from 30° to 60° of the knee motion. Usually, the largest contact area was noted at the position of 45° flexion and the shape of contact appeared to be an hour-glass configuration. As the knee flexed or extended beyond this arc of motion (30° to 60°), the contact areas decreased in size and changed in shape gradually until the extremes of motion were reached. There was a smaller contact area on the medial aspect in full extension and on the lateral aspect in full flexion. Figure 2 shows the cast models from one specimen. This observation was seen equally in both the normal and abnormal specimens. Figure 3 shows schematically the sequential areas of contact in various positions of the normal and abnormal specimens. The total contact area was 2.75 ± 0.5 cm^2. This also was seen equally in both the normal and abnormal specimens which showed early degenerative changes. Figure 4 shows the schematic representation of the total contact areas in the normal and abnormal specimens.

The geometric distribution of the articular surfaces in those six specimens showing early degenerative changes were investigated further. There was a mirror appearance of the degenerated areas on the patellar undersurface and on the

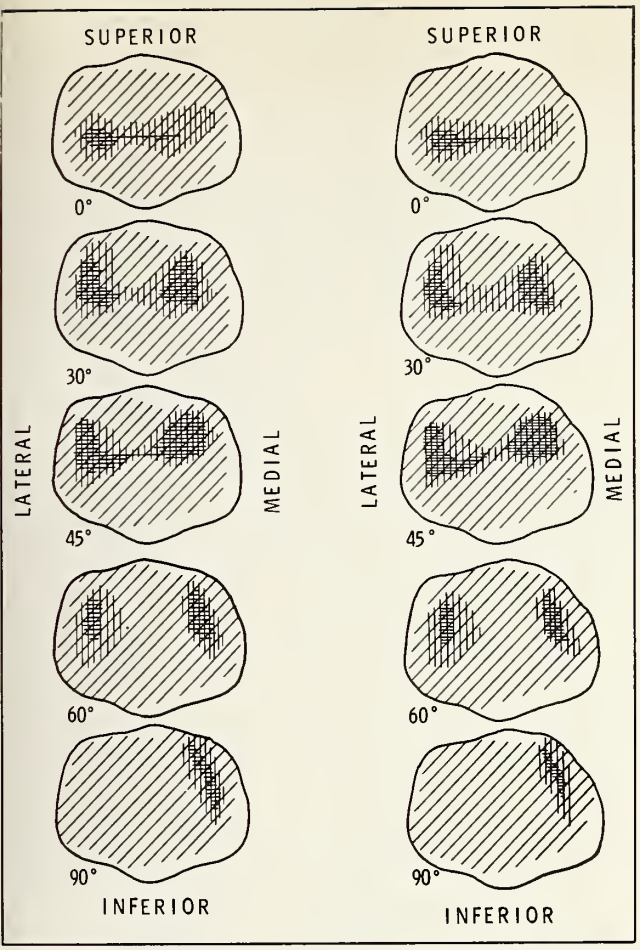


Figure 3—Drawings of the series of contact areas in various knee positions in the normal specimens (left) and the abnormal specimens (right). Note the similarity between these figures.

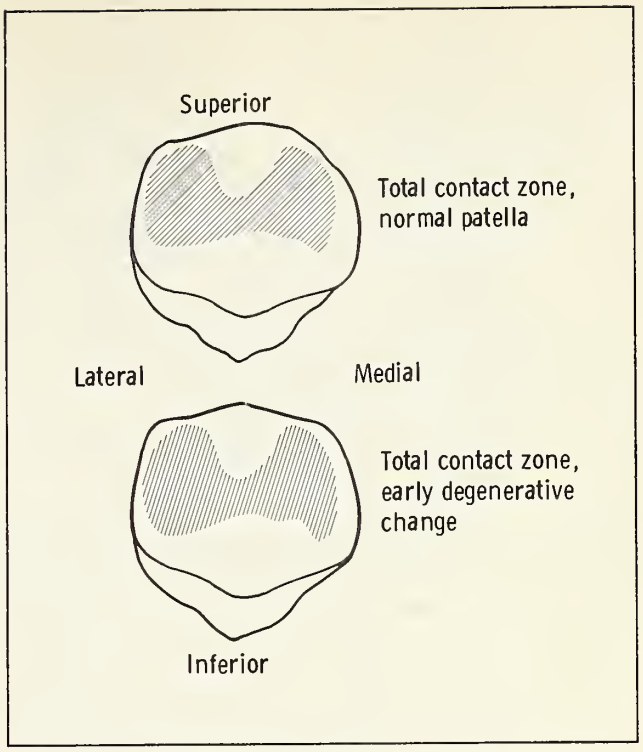


Figure 4—Drawings of the total contact areas in the normal and abnormal specimens. Note the similarity of the total contact areas between the normal specimens and the specimens showing early subclinical degenerative arthritis.

femoral surface in those cases which showed bilateral involvements. These areas of degenerative change fell into the contact area between the patella and the femur at 45° of knee flexion. The area of degeneration on the patellar undersurface in those cases which showed unilateral involvement also was confined to the maximal contact area of that specimen. There was, more or less, a mirror appearance between the area of degeneration on the patellar undersurface and the maximal contact area at 45° position. Figure 5 demonstrates this interesting observation.

DISCUSSION

The size and shape of the contact between the patella and the femur differs in various degrees of flexion throughout the entire arc of knee motion. The largest and the closest contact occurred in mid-flexion of the knee. This was universally noted in the normal knees and in the knees which showed early degenerative arthritis involving the patello-femoral joints subclinically. Figure 6 shows the schematic representation of the patellar undersurfaces in the normal and in the very early subclinical patello-femoral arthritic cases.

None of these specimens showed areas of articular surface degeneration beyond the confines of the contact areas. It is reasonable to believe that this degenerative change begins within the area of contact between the femur and the patella. Degenerative arthritis is a progressive disease. Repeated injuries, even those of daily activities, may pro-

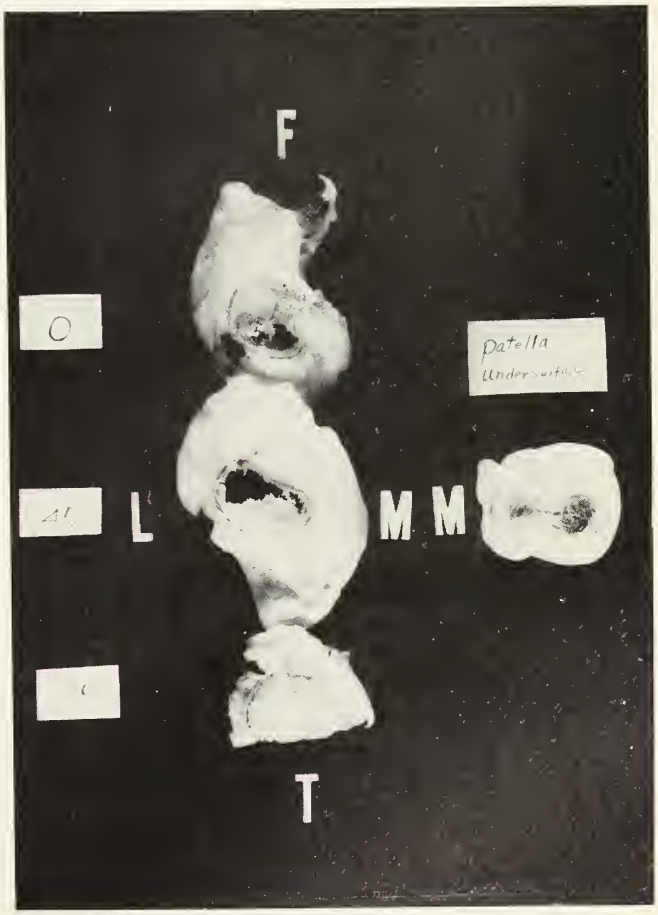


Figure 5—The mirror appearance between the degenerated area on the patellar undersurface with early degenerative arthritis and the contact area at 45° knee position.

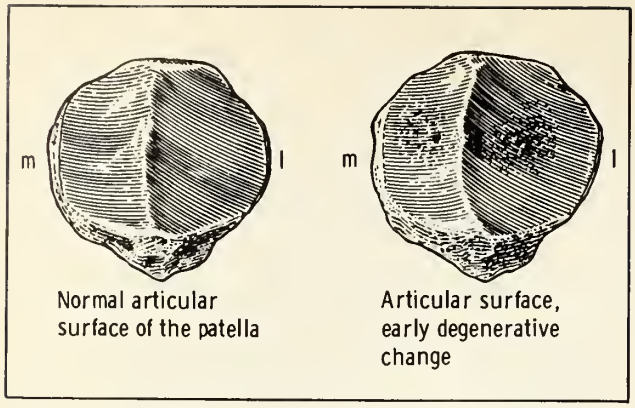


Figure 6—The undersurfaces of the normal patella and the geometric distribution of the degenerated area in early subclinical patello-femoral arthritis.

duce some sort of mechanical wear and tear within the contact area of the patello-femoral joint. This mechanical factor then might cause enzymatic alterations, such as increased cathepsin-D and/or other hydrolases, which could result in destruction of the articular cartilage. The more the wear and tear, the more the enzymatic activities and the more the progressive destruction of the articular cartilage. A vicious cycle exists. As this process proceeds, the involvement of the noncontact articular cartilages occurs. Eventually, total destruction of the articular cartilages, marginal spurring, and subchondral bone erosion and cystic formation occur. Patients with patello-femoral degenerative arthritis may have minimal or no symptoms at the very early stage, but universally present, in the late stages, with pain, swelling, limited range of motion and flexion contracture of the knee. It is not uncommon to see flexion contractures of the knee in patients with patello-femoral arthritis. The loss of the cartilages within the contact zones leads to binding adhesions of the patella on the femur at that particular position. The patella then loses its mobility.

CONCLUSIONS

1. The pattern of patello-femoral contact is a constant finding. The largest and closest contact occurs at the mid-flexion position of the knee. Beyond this extent, the contact area decreased in size and changed in shape until the extremes of the knee motions. The total contact area was 2.75 $\pm$ 0.5 cm^2.

2. There are five to ten degrees of axial movement of the patella throughout the entire arc of knee motion in relationship to the longitudinal axis of the femur.

3. The mirror appearance of the degenerated area on the patellar undersurface and the contact area, as well as the area of degeneration on the femur, were noted.

4. The degenerative arthritis of the patello-femoral joint is believed to begin within the contact area due to mechanical wear and tear which may occur even in daily activities. This mechanical wear and tear, in turn, is postulated to cause enzymatic alterations and subsequent destruction of the articular cartilages.

REFERENCES

1. Ali SY: The degeneration of cartilage matrix by an intracellular protease. *Biochem J* 93:611-18, 1964.

2. Bollet AJ: An essay on the biology of osteoarthritis. *Arthritis and Rheumatism* 12:152-163, 1969.

3. Chrisman OD: Biochemical aspects of degenerative joint disease. *Clin Orthop* 64:77-86, 1969.

4. Depalma AF, Flynn JJ: Joint changes following experimental partial and total patellectomy. *J Bone and Joint Surg* 40-A:395-413, 1958.

5. Evans EB, Eggers GWN, Butler JA, Blumel J: Experimental immobilization and remobilization of rat knee joints. *J Bone and Joint Surg* 53-A:1551-1560, 1971.

6. Hall MC: Cartilage changes after experimental relief of contact in the knee joint of mature rat. *Clin Orthop* 64:64-76, 1969.

7. Haxton H: The function of the patella and the effects of its excision. *Surg Gynec Obstet* 80:389-395, 1945.

8. Kaufer H: Mechanical function of the patella. *J Bone and Joint Surg* 53-A:1551-1560, Dec. 1971.

9. Lack CH, Ali SY: Degradation of cartilage by enzymes. In: *Cartilage Degradation and Repair.* Washington, D.C., National Academy of Science—National Research Council, 1967, pp. 61-75.

10. Salter RB, Field P: The effects of continuous compression on living articular cartilage. An experimental investigation. *J Bone and Joint Surg* 42-A: 31-49, 1960.

11. Shoji H, Granda JL: Hydrolases in articular cartilage of patella, chondromalacia, and osteoarthritic humans. Presented to the Orthopaedic Research Society, Jan. 1973, Las Vegas, Nevada.

12. Smillie IS: *Injuries of the Knee Joint,* 4th edition. Edinburgh and London, Livingston, 1970, pp. 188 and 197.

13. Soto-Hall Ralph: Traumatic degenerations of the articular cartilage of the patella. *J Bone and Joint Surg* 27:426-431, 1945.

14. Walker PS, Hajek J: Load-bearing area in the knee joint. *J Biochem* (in press)

15. Woessner JF: Acid cathespins of cartilage. In: *Cartilage Degradation and Repair.* Washington, D.C., National Academy of Science—National Research Council, 1967, pp. 99-106.

When impotence due to androgenic deficiency is driving them apart



Android®-5 Buccal Tabs
Android®-10 Oral Tabs
Android®-25 Oral Tabs

Methyltestosterone U.S.P. – 5, 10, 25 mg.

Additional Indications:

REPLACEMENT THERAPY. When Androgen Deficiency is cause of:

- Male Climacteric
- Eunuchoidism, Eunuchism
- Post-Puberal Cryptorchidism

New Double-Blind Study ANDROID-25 vs. Placebo*

*R. B. Greenblatt, M.D.; R. Witherington, M.D.,; I. B. Sipahioglu, M.D.; Hormones for Improved Sexuality in the Male and Female Climacteric. **Drug Therapy,** Sept. 1976.

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE:** Robert **B. Greenblatt, M.D.,** and **D. H. Perez, M.D.:** "The Menopausal Syndrome," *Problems of Libido in the Elderly,* pp. 95-101. Medcom Press, N.Y., 1974. **HOW SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

BROWN **THE BROWN PHARMACEUTICAL CO., INC.** 2500 West Sixth Street, Los Angeles, California 90057

REFER TO PDR

Write for Reprints and Samples.

CONFIDENTIAL ADVICE
FOR
PHYSICIANS PRACTICE MANAGEMENT

WRITE TO

CROMWELL CONSULTANTS
ALBERT ABRAHAM, M.D.
11 CROMWELL DRIVE
CONVENT STATION, N.J. 07961

The AMA film library provides a service to you...

The AMA Film Library contains over 200 titles on such subjects as anatomy, embryology, obstetrics, gynecology, pediatrics, radiology, orthopedic surgery, and dermatology. The films are all 16 mm and are available on loan for a small service charge to physicians, medical societies, medical schools, hospitals, and other professional medical groups. A limited number of films on general health education topics are also available to physicians who wish to supplement their programs for lay groups. Free film library catalogs are available from the:

Audio-Visual Self-Learning
Department
535 N. Dearborn St.
Chicago, Illinois 60610

For additional information write to James L. Breeling, Director, at the above address or telephone: (312) 751-6566.

Librax®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective, as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma; prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

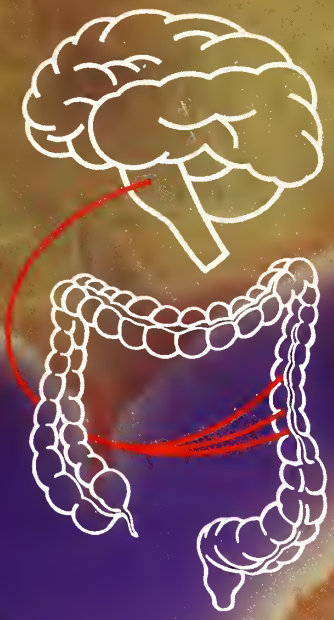
As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

ROCHE

Roche Products Inc.
Manati, Puerto Rico 00701



In treating irritable bowel syndrome*
Enhance your therapeutic expectations with

Librax®

Each capsule contains
5 mg chlordiazepoxide HCl
and 2.5 mg clidinium Br.

antianxiety/antispasmodic/antimotility

Librax is unique among G.I. medications in providing the specific antianxiety action of LIBRIUM®(chlordiazepoxide HCl) as well as the potent antispasmodic and antimotility actions of QUARZAN®(clidinium Br) for adjunctive therapy of irritable bowel syndrome.

ROCHE

*Librax has been evaluated as possibly effective for this indication.
Please see brief summary of prescribing information on preceding page.

Rx for immediate payment of professional fees.



Thanks to a recent New Jersey law, professionals can now receive immediate payment for services by accepting Master Charge and VISA credit cards, both offered by United Jersey Bank.

Check the benefits:

- Costly bookkeeping and billing expenses will be sharply reduced.
- Immediate deposit credit on either Master Charge or VISA charges. No waiting for payment on personal billing or insurance claim responses.
- Patients will like the added convenience of being able to charge medical and dental expenses to their credit cards.

For more information, please contact Fred Lehmann, Jr., Director of Professional Credit Services, United Jersey Bank, P.O. Box 543, Hackensack, N.J. 07602. (201) 646-5444.

A FULL SERVICE BANK

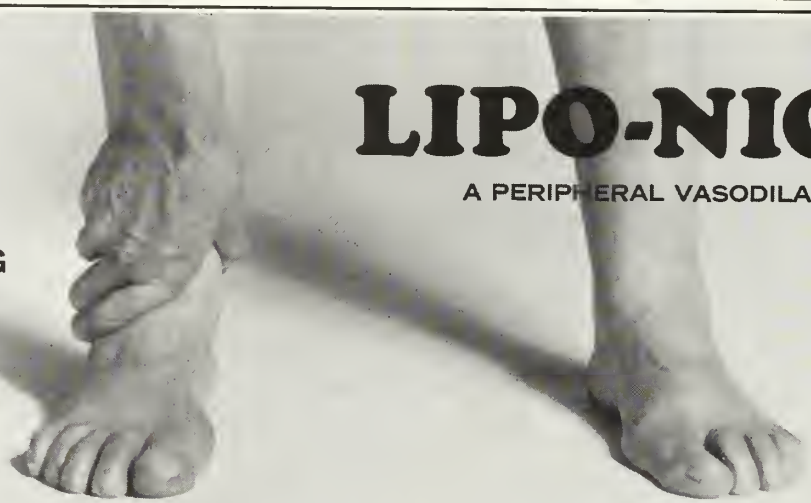
United Jersey Bank
Member FDIC

547

COLD FEET
LEG CRAMPS
TINNITUS
DISCOMFORT ON STANDING

LIPO-NICIN

A PERIPHERAL VASODILATOR



IMMEDIATE or GRADUAL

nicotinic acid therapy

IMMEDIATE RELEASE

LIPO-NICIN/100 mg.
Each blue tablet contains:
Nicotinic Acid .....100 mg.
Niacinamide ..... 75 mg.
Ascorbic Acid .....150 mg.
Thiamine HCL (B-1) .. 25 mg.
Riboflavin (B-2) ..... 2 mg.
Pyridoxine HCL (B-6).. 10 mg.
DOSE: 1 to 5 tablets daily.
AVAILABLE: Bottles of 100, 500, 1000.

LIPO-NICIN/250 mg.
Each yellow tablet contains:
Nicotinic Acid .....250 mg.
Niacinamide ..... 75 mg.
Ascorbic Acid .....150 mg.
Thiamine HCL (B-1) .. 25 mg.
Riboflavin (B-2) ..... 2 mg.
Pyridoxine HCL (B-6).. 10 mg.
DOSE: 1 to 3 tablets daily.
AVAILABLE: Bottles of 100, 500, 1000.

GRADUAL RELEASE

LIPO-NICIN/300 mg.
Each time-release capsule contains:
Nicotinic Acid ..... .300 mg.
Ascorbic Acid .....150 mg.
Thiamine HCL (H-1) .. 25 mg.
Riboflavin (B-2) ..... 2 mg.
Pyridoxine HCL (B-6).. 10 mg.
In a special base of prolonged therapeutic effect.
DOSE: 1 to 3 tablets daily.
AVAILABLE: Bottles of 100, 500.

Indications: For use as e vasodiletor in the symptoms of cold feet, leg cramps, dizziness, memory loss or tinnitus when essociated with impaired peripheral circulation. Also provides concomitant administration of the listed vitamins. The warm tingling flush which may follow each dose of LIPO-NICIN 100 mg. or 250 mg. is one of the therapeutic effects that often produce psychological benefits to the patient. **Side Effects:** Transient flushing and feeling of wermth seldom require discontinuation of the drug. Transient headache, itching and tingling, skin rash, allergies and gastric disturbance mey occur. **Contreindications:** Patients with known idiosyncrasy to nicotinic acid or other components of the drug. Use with ceution in pregnant patients and petients with glaucoma, severe diabetes, impaired liver function, peptic ulcers, end arterial bleeding.

BROWN THE BROWN PHARMACEUTICAL CO., INC. 2500 West Sixth Street, Los Angeles, California 90057

Write for Literature and Samples

REFER TO PDR

Melanoma of the Skin in New Jersey

DAVID STEIN, M.D.
INDERJIT S. THIND, M.D., D.P.H.
DONALD B. LOURIA, M.D., Newark

All cases of malignant melanoma of the skin in residents of Newark and Morris and Hunterdon Counties between 1970 and 1974 inclusive were studied. Age-specific and age-adjusted incidence rates were compared with incidence rates from the Connecticut tumor registry and the Third National Cancer Survey. The results show a wide variability in incidence between three geographical areas and among various age and sex groups. Responsible factors are discussed.

An estimated 9,500 new cases of malignant melanoma of the skin will occur in the United States by the end of 1977, out of a total of 690,000 new cases of malignancy. This does not include about 300,000 new cases of non-melanoma skin cancers. Of these new cases of melanoma, approximately 4,500 will be in men and 5,000 in women. An estimated 5,300 people will die of melanoma during 1977, accounting for about one percent of all cancer mortality in this country.[20] Two-thirds of deaths from cancer of the skin are attributable to malignant melanoma.[11]

Incidence rates for malignant melanoma vary widely in different geographical areas. The duration and intensity of sun exposure, which are determined by latitude and climate, along with racial factors which determine the sensitivity of the individual's skin to sunlight, appear to be important factors in determining the incidence of this malignancy. Diagnosis and treatment of melanoma recently has been reviewed by various authors.[2,4,6,11,16] This report deals with melanoma of the skin in New Jersey.

METHODS

Case reports of malignant melanoma occurring among Newark residents between 1970 and 1974 were collected by the Department of Preventive Medicine and Community Health of the New Jersey Medical School from tumor registries and record rooms of hospitals in Newark and those outside of Newark frequently used by Newark residents, as determined by the patient-flow information of the hospitals. Similar data were collected for Morris and Hunterdon County residents.[14] Care was taken to eliminate duplicate case reports. Average annual age, race-specific rates were calculated. Age-adjusted rates for these areas were calculated using the 1970 United States population as the standard population. Nationwide incidences were calculated from data published as part of the Third National Cancer Survey.[21] In consideration of the probable role of sun exposure in the etiology of melanoma, incidence figures for New Jersey were also compared to those of Connecticut which is similar in latitude and climate to northern New Jersey. Incidence figures from Connecticut were averaged for the years 1970 through 1973.[3] The Connecticut data include all cases since racial breakdown in unavailable, but nonwhites constitute less than five percent of the total Connecticut population and thus would have only marginal influence on the rates among the white population of Connecticut.

RESULTS

Table 1 includes the melanoma data for the areas under study, Connecticut and United States data from the Third National Cancer Survey.

*From the Department of Preventive Medicine and Community Health, New Jersey Medical School, CMDNJ. Correspondence may be addressed to Dr. Thind at the College, 100 Bergen Street, Newark 07103.

Table 1

Total Number of Cases, Average Annual Age-Specific Incidence and Crude Incidence and Age-Adjusted Incidence Rates per 100,000 for Melanoma of Skin Among Whites

	MALES					FEMALES				
Age	Newark+	Morris	Hunterdon	U.S.	Conn.	Newark	Morris	Hunterdon	U.S.	Conn.
			(1)*		(1)					
0-9			3.01**	0.05	0.09				0.05	0.00
					(2)					(5)
10-19				0.15	0.17	1.55			0.50	0.44
		(1)			(21)	(2)	(5)			(32)
20-29		0.87		2.70	2.49	3.22	3.63		3.25	3.52
		(3)	(1)		(38)	(1)	(7)			(49)
30-39		2.48	4.90	5.65	5.75	2.25	5.68		6.25	7.11
	(3)	(6)			(63)		(12)	(1)		(58)
40-49	5.95	4.81	0.00	7.65	8.38	0.00	9.63	4.60	8.00	7.30
		(8)	(3)		(73)	(3)	(12)			(63)
50-59	0.00	8.80	16.33	9.25	10.97	5.26	12.97	0.00	7.50	8.89
	(1)	(4)	(1)		(53)	(2)	(10)	(1)		(41)
60-69	2.62	7.45	8.19	10.65	13.03	4.35	16.43	7.41	8.00	8.38
	(7)	(5)	(1)		(32)		(7)	(1)		(39)
70-79	32.53	19.87	13.98	12.65	14.73	0.00	18.51	10.90	10.70	12.00
	(3)	(2)	(1)		(20)	(1)	(3)	(1)		(21)
80+	36.17	20.80	39.14	19.20	24.28	8.19	16.24	23.97	15.95	14.35
	(14)	(29)	(8)		(304)	(10)	(56)	(4)		(310)
ACI†	3.43	3.18	4.73	4.40	5.15	2.30	5.97	2.32	4.60	4.94
	(14)	(29)	(8)			(10)	(56)	(4)		
AAI††	2.78	3.59	4.59	4.60	5.16	2.14	6.51	2.35	4.40	4.65

+ Newark City, Morris and Hunterdon Counties, data is for years 1970-1974, whites only.
U.S. data is for the years 1969-1971, whites only.[21]
Connecticut data is for the years 1970-1973 and includes both races[3] (non-whites constitute about 2% of the Connecticut population).

* Number in parenthesis is the total number of cases for the years indicated above.
** Average annual age-specific incidence rate.
† ACI = average annual crude incidence.
†† AAI = age-adjusted incidence (1970 U.S. population) calculated by using the average annual age-specific rates.

Five cases of melanoma of the skin were recorded among blacks during the survey period. These included three women from Newark, one Newark man, and one Morris County woman. This small number of cases is to be expected, malignant melanoma being distinctly less common among blacks.[10,13,17] This statement has been disputed by others,[15] but appears to be true for the United States. In the Third National Cancer Survey, blacks had age-adjusted incidence rates of 0.8/100,000 whereas whites had an age-adjusted incidence rate of 4.5/100,000. We found no cases of melanoma in races other than black or white. Because of this small number of cases among blacks, they will be excluded from further analysis.

Data in Table 1 include the total number of cases and the average age-specific incidence rates by sex for the three areas in New Jersey, Connecticut, and the United States regions covered in the Third National Cancer Survey. The data show progressive increase in age-specific incidence with an increase in the age of the patients in both sexes and in all geographic areas. For example, the age-specific incidence for white males in Morris County aged 0 to 9 is 0. It increases to 0.87 for ages 20-29, 4.81 at ages 40-49, 7.45 in the 60-69 year old group and 20.80 for those over 80. A similar progressive increase, with occasional exceptions, is seen for both sexes in other New Jersey areas, Connecticut, and the data from the Third National Cancer Survey. Relatively few cases occurred in the group as a whole before the age of 40.

The age-adjusted incidence rates for white men were 2.78 in Newark, 3.59 in Morris County, and 4.59 in Hunterdon County. The rate for men in Connecticut was 5.16. The age-adjusted incidence rates for women were 2.14 for Newark, 6.51 for Morris County, 2.35 for Hunterdon County, and 4.65 for Connecticut. The Third National Cancer Survey revealed an age-adjusted incidence rate of 4.6 for white men and 4.4 for white women.

DISCUSSION

There is a wide variability in the age-specific incidence rates by age and sex (Table 1). The age-specific incidence rates increased with an increase in age and implies an increased risk for the development of malignant melanoma as one grows older. This change in risk is to be expected from the national data.[11,21] The increased risk might be teleologically attributed to (a) progressively longer cumulative exposure to risk factors for melanoma as one ages, (b) the aging process itself, and (c) an expression of disease after a long latent period.

Interestingly, the observed incidence of melanoma appears to be increasing.[5,8,11] This is seen in the data from the Connecticut survey presented in Table 2. This could relate to ultraviolet radiation levels in the atmosphere which may be increased by a decrease in atmospheric ozone.[9]

The data presented in Mason and McKay's well publicized report on cancer mortality show Essex County to have a lower mortality from melanoma than Morris or Hunterdon Counties and this agrees with the lower incidences seen in Newark (Table 3).

Variation in the incidence for melanoma previously has been reported to differ in different geographical areas,[17] a finding substantiated by the data in Table 1.

Many factors might be considered to be contributing to this variability. Aside from the observed differences in rates

Table 2
Age-Adjusted Incidence Rate/100,000 of Melanoma of Skin in Connecticut (1950 U.S. Population)

Year	Male	Female
1935-1939	1.1	0.9
1940-1944	1.5	1.6
1945-1949	1.8	2.0
1950-1954	2.2	2.7
1955-1959	2.9	3.0
1960-1964	3.7	3.5
1965-1969	4.0	4.2

between blacks and whites, people of different racial and ethnic groups appear to have varied susceptibility to melanoma. Thus the ethnic and racial backgrounds of the people inhabiting different areas of the state must be considered, since this affects skin type and complexion and thereby the sensitivity of the individual to actinic skin damages.[15,17,18]

Although the role of sun exposure in the induction of malignant melanoma might be considered controversial, there is substantial evidence that sunlight is an etiological factor for melanoma as well as for squamous cell and basal cell carcinomas of the skin.[6,11,17,18] This may be the major reason for the increase in the incidence of melanoma in populations closer to the equator;[17] the concept is substantiated by the extraordinarily high incidence rates of 14 in males and 17 in females per 100,000 population.[6] Other factors which must be considered are the length of the day, the amount of sunlight, and the associated radiation which penetrates to ground level. This would in turn be altered by weather patterns and the amount and types of pollutants in the air.

Patterns of dress and climate also may play a role in the etiology of malignant melanoma largely by determining the quantity and areas of sun exposure. Social habits might also differ from county to county and between urban areas such as Newark and suburban and rural areas like Morris and Hunterdon Counties. For instance, outdoor sports such as tennis and golf are more popular in suburban settings.

Occupational factors also may play a role. Outdoor workers such as farmers might be more susceptible to melanoma. In the past, there was more farming in Morris and especially Hunterdon Counties than there was in Newark. Occupational toxins also have been suggested to have a role. For example, a possible increase in the incidence of melanoma has been noted in petrochemical workers working with Arochler® 1254, a polychlorinated biphenyl.[1]

It should be noted that part of the differences in observed incidence rates might be due to factors such as a relatively low index of suspicion for malignant melanoma, especially if a patient died of this disease without major cutaneous manifestations or with no obvious primary lesion and no autopsy report.[12] This is possible (a) if the primary has regressed (this has been observed with melanoma[10]), (b) if it is small and unobtrusive, or (c) if it occurs in a relatively hidden part of the body such as the auditory canal or vagina, or internally.[19] Availability and use of medical care by different populations could affect the observed incidence of malignant melanoma. Many melanomas are undoubtedly removed in dermatologists' offices or in other outpatient facilities; these may or may not be submitted to hospital-based pathologists for examination. Indeed, if the lesion is removed primarily for cosmetic reasons before it undergoes appreciable growth, it may not be suspected of being malignant and may not be submitted for pathological examination at all. The accuracy of histologic diagnosis also must

Table 3
Mortality Due to Melanoma of Skin 1950-1969

County	Male	Female
Essex	(119)* 1.5**	(95) 1.0
Morris	(45) 1.8	(31) 1.1
Hunterdon	(11) 1.9	(8) 1.4

* Total number of cases in years 1950-1969.
** Average annual death rate/100,000 population

be considered. Because melanoma might require very specialized care, advanced cases might be referred out of State for treatment and, thus, not appear among our cases.

Finally, the differences in the observed incidence could result from variations in reporting melanoma on death certificates—4 percent in Connecticut, 10 percent in California, 7.6 percent in El Paso.[7] In the present investigation, the percentage is unknown.

It is evident that age-adjusted incidence rates for melanoma vary greatly for different parts of New Jersey. Just how much of this variation is real awaits more precise data collection, through a state-wide tumor registry with a mandatory reporting system. This also might uncover areas in which preventive measures could be applied.

REFERENCES

1. Bahn AK, Rosenwaike I, Herrmann N: Melanoma after exposure to PCB's. *N Engl J Med* 295:450, 1976.
2. Caro W: *Malignant Melanoma in Dermatology,* Moschella S, Pillsbury DM, Hurley HJ, editors: Philadelphia, Saunders, 1975. Pp. 1361-1363.
3. Christine BW, Sullivan PD, Flannery JT: Cancer in Connecticut, 1970, 1971, 1972, 1973. Hartford, Connecticut State Dept. of Health, in Connecticut Health Bulletin.
4. Clark W: Clinical diagnosis of malignant melanoma. *JAMA* 236:484, 1976.
5. Cosman B, Heddle SB, Crikelair GF: The increasing incidence of melanoma. *Plast and Reconstr Surg* 57:50, 1976.
6. Davis NC, McLeod R, Beardmore GL, *et al:* Primary cutaneous melanoma: A report from the Queensland Melanoma Project. *CA* 26:80, 1976.
7. Doll R, Calum M, Waterhouse J: *Cancer Incidence in Five Continents,* vol II. Berlin, Springer, Verlag, 1970.
8. Epstein E, Bragg K: Changes in incidence of melanoma. *Arch Dermatol* 112:1174, 1976.
9. Fears TR, Scotto J, Schneiderman MA: Skin cancer, melanoma, and sunlight. *Am J Publ Health* 66:461, 1976.
10. Fleming ID, Barnawell JR, Burlison PE, Rankin JS: Skin cancer in black patients. *Cancer* 35:600, 1975.
11. Kopf AW, Bart RS, Rodriquez-Sains R: Malignant melanoma: A review. *J Derm Surg Oncol* 3:43, 1977.
12. Kopf AW, Mintzis M, Bart RS: Diagnostic accuracy in malignant melanoma. *Arch Dermatol* 111:1291, 1975.
13. Krementz ET, Sutherland CM, Carter RD, Ryan RF: Malignant melanoma in the American Black. *Ann Surg* 183:533, 1976.
14. Louria DB, Thind IS, Najem GR, *et al:* Cancer in New Jersey: An overview. *J Med Soc NJ* 73:749, 1976.
15. Lewis MG: Melanoma. *Recent Results in Cancer Research* 41:171, 1973.
16. Lewis MG, Rowden G: Malignant melanoma. In: *Clinical Dermatology* Demis, D.J., Dobson, R.L., McGuire, J., editors. New York, Harper and Row, 1977.
17. MacDonald EJ: Epidemiology of melanoma. *Progress in Clinical Cancer* 6:139, 1975.
18. Movshovitz M, Modam B: Role of sun exposure in the etiology of malignant melanoma: Epidemiologic inference. *J Natl Cancer Inst* 51:777, 1973.
19. Scotto J, Fraumeni JF, Lee JAH: Melanomas of the eye and other noncutaneous sites: Epidemiologic aspects. *J Natl Cancer Inst* 56:489, 1976.
20. Silverberg E: Cancer statistics, 1977. *CA* 27:26, 1977.
21. Third National Cancer Survey—Advanced Three Year Report, 1969-1971 Incidence (Excluding Carcinoma *In-situ*). Biometry Branch, N.C.I. Bethesda, Maryland, 1974.

Variation in the Sensitivity of Countercurrent Immunoelectrophoresis in the Diagnosis of Hemophilus Influenzae Type b Meningitis

JEREMIAS L. MURILLO, M.D.,
KAREN MAIGETTER,
JULES A. TITELBAUM, M.D., Newark

Cerebrospinal fluid from five patients with confirmed H. influenzae type b meningitis was tested by countercurrent immunoelectrophoresis in order to detect capsular antigens. Two different lots of a commercially available H. influenzae type b antisera were used. A variation in the sensitivity of the test was observed resulting in false-negative reactions in two specimens. Standardization of the CIE procedure for every lot of antisera is recommended to prevent errors in interpretation.

Countercurrent immunoelectrophoresis (CIE) is an immunoprecipitin technique which has been shown to be a rapid and reliable laboratory procedure for the detection of specific bacterial antigens.[1,2] The usefulness of this procedure in the early diagnosis of H. influenzae type b meningitis has been well demonstrated by various investigators.[3-6] However, it is well known that CIE can yield negative results in a small proportion of H. influenzae type b meningitis confirmed by culture.[4,6]

The purpose of this report is to show a possible explanation for some of these false negative reactions.

MATERIALS AND METHODS

Cerebrospinal fluids were collected from patients admitted with clinical meningitis and stored at −20° C until tested by countercurrent immunoelectrophoresis. Cerebrospinal fluids from five patients with H. influenzae type b meningitis confirmed by positive cultures were selected and used as the test material. Two different lots of antisera (#3092V002A1 and #3092C00AA) for H. influenzae type b were obtained from Hyland Laboratories, Costa Mesa, California, and were used for comparison.

Countercurrent immunoelectrophoresis (CIE) technique: Empty immunodiffusion plates (Hyland) were covered with an even layer of one percent agarose in barbital buffer (C136, ionic strength 0.1, pH 8.6, Kallestad Laboratories, Chaska, Minn.) by slowly pipetting three ml. of the agar-barbital solution over each plate placed on a leveling table. The agar-barbital solution was evenly distributed on the plate and solidified at room temperature then stored at 4° C in a humidified chamber.

Parallel rows of wells three mm. in diameter were cut three mm. apart from edge to edge with a gel puncher (#2000, Accurate Chemical and Scientific Corp., Hicksville, New York). Using a calibrated Drummond Dialmatic Micro-dispenser (Drummond Scientific Co., Broomall, Pa.), five microliters of antisera were placed in the row of wells nearest the anodal side and five microliters of CSF were placed in the row of wells nearest the cathodal side. Telfa wicks (Bio Rad) were used as connecting wicks with one end saturated with electrode buffer and the other end positioned over the edge of the agar plate to provide an overlap of one centimeter. Electrophoresis was carried out at room temperature for one hour at 40 mA per plate with 270V as the terminal voltage.

After completion of the procedure, the agarose gel slides were examined immediately under the illuminated viewer (E121 Kallestad viewer, Kallestad Laboratories, Chaska, Minn.) and lines of precipitation were identified and recorded.

*From the Department of Pediatrics, Newark Beth Israel Medical Center and the New Jersey Medical School, CMDNJ, Newark. Supported in part by a grant from Hoffman-La Roche. Correspondence may be addressed to Dr. Titelbaum, Director, Department of Pediatrics, Newark Beth Israel Medical Center, 201 Lyons Avenue, Newark 07112.

Table

Comparison of results obtained by CIE using two different lots of Hyland H. influenzae type b antisera.

Patient	Age	Lot A*		Lot B**	
		titer	EAQ*** (μgm/ml)	titer	EAQ (μgm/ml)
#1	13 mos.	1:4	0.2	1:16	0.8
#2	9 mos.	(–)	(–)	undiluted	0.05
#3	24 mos.	1:128	6.4	1:128	6.4
#4	2 mos.	(–)	(–)	undiluted	0.05
#5	12 mos.	NT ****	NT	undiluted	0.05

*lot A: 3092V002A1 (Hylond)
**lot B: 3092C00AA (Hylond)

***EAQ: estimated antigen quantity
****NT: not tested

RESULTS

The cerebrospinal fluids (CSF) of five patients with confirmed H. influenzae type b meningitis were used to compare the sensitivity of two different lots of the commonly used, commercially available Hyland H. influenzae type b antisera. The results are summarized in the table. Two CSF samples gave negative reactions when initially tested with lot A of the Hyland H. influenzae type b antisera. However, when tested with lot B antisera, precipitin lines were noted along the wells containing undiluted CSF. These samples have remained negative when retested with lot A antisera. The undiluted CSF was estimated to contain 0.05 μ gm/ml of antigen when compared with a known standard.

In Patient #1, a two-well difference in titer was noted between lot A antisera and lot B antisera. No difference was observed with Patient #3.

DISCUSSION

There are three aspects in the diagnosis and management of bacterial infections where countercurrent immunoelectrophoresis may play a useful role. CIE provides rapid detection and identification of bacterial antigen in body fluids. Feigin, *et al.*[7] achieved a diagnosis in 100 percent of patients with H. influenzae type b or meningococcal meningitis and 78 percent of patients with pneumococcal meningitis upon admission when CIE was performed on CSF, blood, and urine.

CIE also plays an important role in the diagnosis of partially treated meningitis.[3,6,7] Coonrod and Drennan[8] studied the kinetics of pneumococcal antigenemia and antibody responses and suggested that the clearance of antigen depends upon the ability of the patient to mount type-specific antibody. Feldman[9] also showed that when CSF antigen quantity exceeded 1 μ gm/ml, antibiotic therapy did not significantly alter the presence of antigen during the first 24 hours of treatment. However, it is most likely that a threshold exists for the clearance of either bacteria or antigen in the CSF, and the threshold for antigen appears to be higher than for bacteria resulting in persistence of antigen after all viable bacteria have disappeared.[10]

Several investigators[4,6,9] have made attempts at prognostication by correlating clinical outcome with antigen quantity estimated by a standardized CIE procedure. Increased amounts of antigen in the CSF have been associated with poor prognosis and complicated sequelae.

Although CIE generally has been accepted as a useful laboratory technique in the diagnosis of bacterial meningitis, certain problems still exist with the procedure itself. False positive reactions, mainly as a result of cross-reacting antigens, do occur. Cross-reactions between the polyribophosphate (PRP) of H. influenzae type b and the antigens of E. coli Easter strain and pneumococcus type 29 have been reported.[3] Furthermore, false negative reactions also have been observed.[6] In a few patients, no antigen can be detected in CSF samples that are bacteriologically positive. Ingram *et al.*[3] compared the potency of H. influenzae type b antisera from various sources and noted some difference in sensitivity and specificity in detecting PRP by CIE.

A commercially available H. influenzae type b antisera commonly is used by most workers and is considered to be reliable for CIE. However, we have noted a variation in the sensitivity of this antisera from different lots. It seems possible that minute amounts of antigen may not be detected by antisera with decreased sensitivity. We therefore suggest routine standardization of each new lot of antisera to determine the least amount of antigen that can be detected by that specific antisera. In this manner, it is hoped that false negative reactions will be minimized, if not completely eliminated.

We wish to thank Lynn Harding and Dr. Robert Maigetter for providing the H. influenzae type b polyribophosphate standard.

REFERENCES

1. Edwards EA: Immunologic investigation of meningococcal disease, I. Group specific Neisseria meningitidis antigens present in the serum of patients with fulminant meningococcemia. *J Immunol* 106:314, 1971.

2. Dorff GJ, Coonrod JD, Rytel MW: Detection by immunoelectrophoresis of antigen in sera of patients with pneumococcal bacteremia. *Lancet* 1:578, 1971.

3. Ingram, DL, Anderson P, Smith DH: Countercurrent immunoelectrophoresis in the diagnosis of systemic diseases caused by Hemophilus influenzae type b. *J Pediatr* 81:1156, 1972.

4. Coonrod JD, Rytel MW: Determination of aetiology of bacterial meningitis by counterimmunoelectrophoresis. *Lancet* 1:1154, 1972.

5. Edwards EA, Muehl PM, Peckinpaugh RD: Diagnosis of bacterial meningitis by counterimmunoelectrophoresis. *J Lab Clin Med* 80:449, 1972.

6. Shackelford PG, Campbell J, Feigin RD: Countercurrent immunoelectrophoresis in the evaluation of childhood infections. *J Pediatr* 85:478, 1974.

7. Feigin RD, Wong M, Shackelford PG, *et al.*: Countercurrent immunoelectrophoresis of urine as well as of CSF and blood for diagnosis of bacterial meningitis. *J Pediatr* 89:773, 1976.

8. Coonrod JD, Drennan DP: Pneumococcal pneumonia: Capsular polysaccharide antigenemia and antibody responses. *Ann Intern Med* 84:254, 1976.

9. Feldman WE: Relation of concentrations of bacteria and bacterial antigen in cerebrospinal fluid to prognosis in patients with bacterial meningitis. *N Engl J Med* 296:433, 1977.

10. O'Reilly RJ, Anderson P, Ingram DL, *et al.*: Circulating polyribophosphate in Hemophilus influenzae type b meningitis: Correlation with clinical course and antibody response. *J Clin Invest* 56:1012, 1975.

Clinical experience & continuing confidence

KAON® ELIXIR was introduced in **1954,** followed by KAON® TABLETS in **1963.** Decades of clinical experience indicate acceptability, effectiveness, and safety in the majority of patients; should abdominal pain occur, therapy should be discontinued. Both have been taken by patient after patient, day after day, year after year, to correct potassium deficiencies. Both have consistently demonstrated their value when diet alone is inadequate for potassium replacement.

Kaon® Elixir
(potassium gluconate)

Kaon® Tabs
(potassium gluconate)

BRIEF SUMMARY
Kaon Tablets/Kaon Elixir

KAON® (potassium gluconate) TABLETS

Description: Each sugar-coated tablet supplies 5 mEq. of elemental potassium (as potassium gluconate 1.17 Gm.). Kaon Tablets are sugar coated, not enteric coated, which favors dissolution in the stomach and absorption before reaching the small intestine where the lesions with enteric potassium chloride have occurred. The sugar coating merely adds to palatability and ease of swallowing, not to delay absorption as does the enteric coating.
Indications: Oral potassium therapy for the prevention and treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.
Contraindications: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause.
Warning: There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides or certain other oral diuretics. These small-bowel lesions have caused obstruction, hemorrhage and perforation. Surgery was frequently required and deaths have occurred. Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Coated potassium tablets should be used only when adequate dietary supplementation is not practical.
Precautions: In response to a rise in the concentration of body potassium, renal excretion of the ion is increased. With normal kidney function, it is difficult, therefore, to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentra-

1954
1978

Time is the test of all things



tions of potassium ion may cause death through cardiac depression, arrhythmias or arrest. This drug should be used with caution in the presence of cardiac disease.

In hypokalemic states, especially in patients on a salt-free diet, hypochloremic alkalosis is a possibility that may require chloride as well as potassium supplementation. In these circumstances, Kaon (potassium gluconate) should be supplemented with chloride. Ammonium chloride is an excellent source of chloride ion (18.7 mEq. per Gram), but it should not be used in patients with hepatic cirrhosis where ammonium salts are contraindicated. Other sources for chloride are sodium chloride and Diluted Hydrochloric Acid, U.S.P.

It should also be kept in mind that ammonium cycle cation exchange resin, sometimes used to treat hyperkalemia, should not be administered to patients with hepatic cirrhosis

Adverse Reactions: Nausea, vomiting, diarrhea and abdominal discomfort have been reported. The symptoms and signs of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of QRS complex, changes of the S-T segment, tall peaked T waves, etc.

Overdosage: Potassium intoxication may result from overdosage of potassium or from therapeutic dosage in conditions stated under "Contraindications." Hyperkalemia, when detected, must be treated immediately because lethal levels can be reached in a few hours.

KAON® (potassium gluconate) ELIXIR

Description: Each 15 ml. (tablespoonful) supplies 20 mEq. of elemental potassium (as potassium gluconate, 4.68 Gm.) with saccharin and aromatics. Alcohol 5%.

Indications: See Kaon Tablets.

Precautions: See Kaon Tablets.

In hypochloremic alkalosis, potassium replacement with potassium chloride (e.g., Kaochlor® 10% Liquid) may be more advantageous than with other potassium salts.

Adverse Reactions: See Kaon Tablets.

Overdosage: See Kaon Tablets.

WARREN-TEED
LABORATORIES, INC.
DIVISION OF **ADRIA LABORATORIES INC.**
COLUMBUS, OHIO 43215

TREAT THE SYMPTOMS IN THE GERIATRIC PATIENT

APATHY • IRRITABILITY
FORGETFULNESS • CONFUSION



Cerebro-Nicin® CAPSULES

A GENTLE CEREBRAL STIMULANT & VASODILATOR FOR GERIATRIC PATIENTS

Each CEREBRO-NICIN™ capsule contains:

Pentylenetetrazole	100 mg.
Nicotinic Acid	100 mg.
Ascorbic Acid	100 mg.
Thiamine HCl	25 mg.
l-Glutamic Acid	50 mg.
Niacinamide	5 mg.
Riboflavin	2 mg.
Pyridoxine HCl	3 mg.

AVAILABLE: Bottles 100, 500, 1000

SIDE EFFECTS: Most persons experience a flushing and tingling sensation after taking a higher potency nicotinic acid. As a secondary reaction some will complain of nausea, sweating and abdominal cramps. The reaction is usually transient.

INDICATIONS: As a cerebral stimulant and vasodilator.

RECOMMENDED GERIATRIC DOSAGE: One capsule three times daily adjusted to the individual patient.

WARNING: Overdosage may cause muscle tremor and convulsions.

CONTRAINDICATIONS: Epilepsy or low convulsive threshold.

CAUTION: Federal law prohibits dispensing without prescription. Keep out of reach of children.

Write for literature and samples . . .

BROWN THE BROWN PHARMACEUTICAL CO.
2500 W. 6th St., Los Angeles, Calif. 90057

Officially Endorsed by *The Medical Society of New Jersey*

a new group major medical program for Doctors

- LOW RATES
- BROAD COVERAGE
- OPEN ENROLLMENT – JUNE

For More Information Contact
Donald F. Smith and Associates

Research Park, 1101 State Road • Princeton, New Jersey 08540 • (609) 924-8700 or (201) 622-6046

Underwritten by New Jersey Blue Cross-Blue Shield.

Protein-Supplemented Starvation: An Interpretive Review

SUSAN SELL, B.S.,
MIRIAM K. BRUSH, Ph.D., New Brunswick
HOWARD N. JACOBSON, M.D., Piscataway
THEODORE B. VAN ITALLIE, M.D., New York

Overweight is among the most common afflictions of these times. The proliferation of techniques to treat the overweight has included approaches that are appealing in their simplicity but are actually unsafe. Concern over this situation led the Council of Medical Services of MSNJ to initiate a review of current approaches to achieving weight loss. This interpretive communication describes the main trends in this active field.

Countless dietary weight reduction regimens have been proposed through the years, but few have been effective over long periods of time.[19] This situation is frustrating to the patient, physician, and nutritionist. We all agree that the only ways to lose weight are to reduce caloric intake, increase caloric expenditure, or, preferably, to do both. Rarely are hypocaloric diets adhered to for the amount of time required to achieve the needed weight loss. Other forms of treatment, including anorectic drugs and hypnosis also have been ineffective over the long term.

In the late 1950's and early 1960's, fasting came into vogue because it was thought that it was easier for obese individuals to abstain totally rather than adhere to a hypocaloric diet which requires following instructions, but does not avoid external food-related cues.[18] Additionally, the anorexia, which is characteristic of starvation, favors adherence to the regimen.[8] Although there is dramatic weight loss, there are numerous complications associated with starvation, some very severe. The principal metabolic adaptation which occurs during prolonged starvation, as reviewed by Cahill is the increased utilization of ketones and fatty acids for energy so as to preserve body protein.[9] It must be emphasized that although this adaptation occurs, there is, nevertheless, a significant and continuing loss of nitrogen, and thus, of lean body mass (LBM).

PRESENT SITUATION

The first study examining the effect of a low-calorie, ketogenic diet on body weight and body composition, by a series of biochemical techniques, reported that up to 97 percent of the total weight change was due to loss of adipose tissue, compared to 35.4 percent while fasting.[1] Yang and Van Itallie found that only 35 percent of the weight loss, during a ketogenic diet, was due to loss of fat.[21]

Bolinger, *et al.*, in 1966, found that giving fasting subjects a supplement of 40 grams of protein from egg white decreased the losses of LBM, although nitrogen balance was still negative.[8]

Blackburn, Flatt and associates, in the early 1970's, used amino acid infusions for supporting postoperative and traumatized patients. This approach was designed to utilize endogenous fat stores, improve nitrogen balance, and spare body

*Prepared for the Council on Medical Services of the Medical Society of New Jersey, in consultation with Theodore B. Van Itallie, M.D., of the College of Physicians and Surgeons of Columbia University, New York City. Ms. Sell and Dr. Brush are affiliated with the Home Economics Department, Douglass College of Rutgers University, New Brunswick, and Dr. Jacobson is with the Department of Community Medicine at Rutgers Medical School, University Heights, Piscataway 08854. Correspondence may be addressed to Dr. Jacobson at the Medical Society of New Jersey, P.O. Box 904, Trenton 08605.

protein.[2,3] The regimen was based on the idea that glucose infusions stimulate insulin release, which would in turn inhibit lipolysis; amino acid infusates, in contrast, would not cause a rise in insulin and glucose levels. This would allow free fatty acids and ketones to replace the need for gluconeogenesis.†

Later, Flatt and Blackburn applied the theory and technique to the treatment of obesity.[4,10] The result was what has come to be known as the "protein-sparing modified fast" (PSMF).[6] The PSMF would allow ketosis to proceed, yet preserve lean body mass. Blackburn and Flatt determined nitrogen equilibrium could be obtained at a protein intake of 1.4g/Kg of ideal body weight (IBW) in males, and 1.2g/Kg IBW in females.[4] Their protocol included protein, as lean beef, salt ad lib., at least 1500 cc water, 25 meq potassium, a vitamin mineral supplement, and four *TUMS*®, as a calcium source. This weight-reduction program was a comprehensive one, including behavior modification, exercise, nutrition education, as well as the PSMF. They noted, "It does require careful, competent physician-monitoring to prevent misuse and to deal with intercurrent illness and medical problems."

Lindner and Blackburn delineated a multidisciplinary approach which is composed of three phases, in order of priorities.[18] The first priority, cue control, involves avoidance, of which the PSMF is considered to be the essential component. The second priority consists of increased activity patterns, nutrition education, mental programming, relaxation techniques, and behavior-modification therapy. The third priority is the technique to lose weight. "Weight loss is needed to reinforce biologically the education and behavior-modification program used to develop cue control." In a study to evaluate the feasibility and practicality of the protocol of the PSMF, in a clinical setting, they reported that the protocol was well tolerated and there was a substantial weight loss which was maintained. There were also other consequences. Thus, there was occasional postural hypotension, constipation, feelings of weakness, occasional nausea, muscle cramps, amenorrhea and transient hair loss. These and other known side effects are listed in Table I. Twenty-one of the fifty-two subjects completing the experiment had participated in the full protocol and essentially maintained their body weight loss for two years.

Both the non-diabetic obese and the diabetic obese have elevated insulin levels, which may increase their adipose tissue mass and inhibit its breakdown. Bistrain, *et al.*[5] have applied PSMF to diabetic subjects with resultant weight losses of 40 pounds, maintenance of weight loss up to 12 months and, as found by others, an early withdrawal of the need for exogenous insulin for diabetics with some endogenous insulin.[5]

In direct contrast to results reported by Blackburn[2,3,7], Freeman, *et al.*,[11] although able to improve nitrogen balance 43 percent during infusions of amino acid solutions in normal adults, were unable to obtain either nitrogen equilibrium or positive nitrogen balance. They suggest the results differ due to the debilitated state of the surgical patients used in Blackburn's studies.

Greenberg, *et al.* found, during their studies evaluating the addition of glucose or lipid to amino acid infusions, in postoperative patients, that nitrogen balance was still negative, but improved as compared with glucose infusions alone.[12]

Table I

Known Side Effects Associated With Protein Supplemented Starvation

- postural hypotension
- cardiac arrhythmias
- nausea, vomiting
- constipation or diarrhea
- amenorrhea
- decreased libido
- elevated uric acid levels
- gout recurrence
- kidney stones
- gall stones
- increased susceptibility to respiratory infections
- muscle cramps
- temporary paralysis of lower extremities
- cold intolerance
- transient hair loss
- feelings of weakness
- "blackout" episodes
- dysphoria, ie., fatigue, irritability, euphoria, depression, lethargy
- mental confusion – incapability to make decisions
- hives
- skin dryness
- halitosis
- flatulence
- flabby skin
- "refeeding edema"

They found that added hypocaloric glucose did not increase mobilization of muscle protein, despite the higher insulin levels, so that in the hypocaloric state, low insulin levels were not a *sine qua non* for protein sparing.[12] Their findings ". . . suggest that the major determinant of protein sparing in the absence of total calorie replacement is, in fact, protein itself," further, "utilization of protein does not appear to be contingent upon the presence of specific substrate or hormone levels."

BODY COMPOSITION – NITROGEN BALANCE††

The belief that LBM is preserved during protein-supplemented starvation (PSS) is based on the improvement in nitrogen balance during this regimen versus total starvation. However, the behavior of nitrogen balances in subjects undergoing various dietary regimens is contingent on numerous factors.[14,20] For example, it is strongly influenced by previous protein intake and previous nutritional status. Few studies standardized the pre-experimental diet, and if so, usually not for long enough time. The estimated nitrogen losses can vary significantly and cause varying results. For example, one must account for dermal losses of nutrients, and be careful to measure invisible returns from trays, pots, and pans. These problems, inherent in metabolic balance techniques, limit the usefulness of the method and have led to doubts of the validity of many published studies.[15]

Even with due account of these limitations, nitrogen equilibrium is eventually approached in the starved subject, when he adapts by a gradual decrease in the excretion of urea nitrogen and by lowered energy expenditure. Nitrogen balance may further be a misinterpretation of metabolic events occurring during dietary restrictions due to a redistribution of tissue protein. Nettleton and Hegsted's investigation into the interrelationships among energy and protein

†Whereas pathologic ketosis in decompensated diabetes is dangerous, ketosis remains under control in the above situation because ketones stimulate insulin, which in turn inhibits ketogenesis.[2,13]

††The formula for nitrogen balance is Nbal = nitrogen intake – (urine N + fecal N + estimated miscellaneous N loss).

restrictions and time have shown that utilization of dietary protein or conservation of tissue protein is dependent upon the degree of restriction of each and the time the restriction was imposed.[23] Various tissues do not respond in parallel manners, which demonstrates the limitations of interpretations based on changes in the total body protein. The authors note, "Nearly all the studies upon protein requirements and the utilization of dietary protein in man are of short duration and based upon overall nitrogen balance. These kinds of studies provide no information as to the distribution of nitrogen within the body tissues."[23]

OTHER TECHNIQUES

The controversies over the determination of body composition changes led Yang, *et al.* to compare five different methods used to estimate the composition of weight loss in obese individuals undergoing various weight reduction regimens.[22] The five procedures are listed in Table II. The energy-nitrogen (E-N) balance procedure appeared to be the most consistent method evaluated. They noted that the measurement of changes in body fat content, by all of these methods described in the article, are indirect in the sense that changes in body fat are inferred from changes in body weight that are not accounted for by changes in body water, lean body mass or protein. Thus, further validations of these procedures by independent methods, that are based on different sets of assumptions, are highly desirable.[22]

With respect to weight reduction using PSS, even if nitrogen equilibrium is obtained, there are no data to indicate how long it will remain before there is further negative nitrogen balance. How long can LBM be depleted before it is life-threatening? There are reports that patients have remained on the PSS regimen for twelve months and longer.[5] But definitive answers to these questions are still to be obtained.

CURRENT CONCEPTS OF PSS MANAGEMENT

All authors agree that competent physician monitoring of every patient on the PSS is crucial. Particular attention should be given to patients taking prescribed medications, such as diuretics and hypertensive drugs. Recently, Linn has popularized the liquid hydrolyzed protein diet.[17] He too continously cautions people to use the diet and the protein only under careful medical supervision.

The hydrolyzed protein formulas sold commercially, often termed "predigested protein" are mixtures of essential and non-essential amino acids derived from the collagen and gelatin of animal hides, tendons, and bones. The protein quality of the formula is poor; moreover, it contains no sources of vitamins, minerals, and essential fatty acid. Such preparations are not recommended for clinical use.[27] If they are used for investigational purposes, a carefully designed vitamin and mineral supplement is essential. Further, the investigators need to be aware of the substantial number of fatalities reported for individuals who have followed this regimen for prolonged periods (average five months).[25]

It is important to distinguish supplemented fasting on a poor quality diet from the type of PSS used by Blackburn, *et al.* and Genuth, *et al.*[26] These investigators use protein sources of high quality. Even with patients on these regimens, an inadequate fluid intake may cause some dieters to become dizzy owing to postural hypotension related to excessive losses of sodium and water.[24]

Some commercial weight-reduction centers continue to encourage overweight individuals to use the protein hydrolysate diet. These centers use two different approaches. For some patients the hydrolyzed protein may be the only energy source prescribed, which provides approximately 300 Kcal per day; others may be directed to consume the hydrolyzed protein for two of their meals, and a regular meal is prescribed for the third meal. Patients using the latter regimen run less risk of complications. Characteristically, centers provide a degree of medical supervision, exercise programs, and a type of behavior modification therapy.

Lindner and Blackburn note that PSS needs further testing by qualified clinicians in appropriate clinical investigation settings.[18] They have recently expressed their concern over the unwarranted popularization of their experimental work. Their concern stems from the use of the hydrolyzed protein diet (PSS) without the other modalities, the inadequate physician monitoring; and the routine non-individualized high doses of vitamins.[16] They state, "To hold oneself out to a public, desperate in their search to control obesity, as practicing the PSMF without adhering to the principles that we have outlined in detail is tantamount to the fradulent practice of medicine, and is not in the best interests of the patients."

CONTRAINDICATIONS

PSS is definitely contraindicated for those with existing liver, kidney, heart and cerebrovascular disease, as well as for people with psychiatric illnesses. It is also contraindicated for children, pregnant and lactating women, and the elderly. In the future, when and if PSS is determined to be safe and effective, it should be reserved as a life-saving measure for the morbidly obese, who have unsuccessfully attempted other weight-reduction programs.

CONCLUSION

Use of a monofocal program, such as hypocaloric diets, does not furnish one with an acceptable basis for lifetime eating which is compatible with the person's lifestyle. In this regard, use of hydrolyzed proteins as the sole source of calories without the additional safeguards outlined above is premature and certainly does not train one to become responsible for one's lifelong eating and activity behavior. It may well be that the behavior and activity modification programs are the most important aspects of Lindner and Blackburn's multidisciplinary approach to obesity.[18]†††

Until comprehensive PSS programs have been demonstrated to be safe, management of the overweight person will continue to be based on an individually designed hypocaloric diet and an increased energy expenditure. The aim is to achieve a safe weight loss that improves health and that can be maintained over the person's lifetime.

Table II

Methods Used To Estimate the Composition of Weight Loss

1. Energy – nitrogen balance method (E-N)
2. Total body water – Nitrogen method
3. Total body water method
4. Total body potassium method
5. Anthropometric measure

†††This conclusion is reinforced by the fact that the Lindner Clinic, in California, has developed a comprehensive educational package for physicians interested in implementing this complete protocol which includes an intake and evaluation phase, PSMF phase, and maintenance phase.

SELECTED BIBLIOGRAPHY

1. Benoit FL, Martin RL, Watten RH: Changes in body composition during weight reduction in obesity. *Ann Intern Med* 63:604-612, 1965.

2. Blackburn GL, Flatt JP, Clowes GHA, O'Donnell TE: Peripheral intravenous feeding with isotonic amino acid solutions. *Am J Surg* 125:447-454, 1973.

3. Blackburn GL, Flatt JP, Clowes GHA, O'Donnel TF, Hensle TE: Protein-sparing therapy during periods of starvation with sepsis or trauma. *Ann Surg* 177:588-594, 1973.

4. Blackburn GL, Bistrian R, Flatt JP: Role of a protein-sparing fast in a comprehensive weight reduction programme, In: *Recent Advances in Obesity Research*, A.N. Howard, Editor. London, Newman Pub. Ltd, 279-281, 1975.

5. Bistrian BR, Blackburn GL, Flatt JP, Sizer J, Scrimshaw, NS, Sherman M: Nitrogen metabolism and insulin requirements in obese diabetic adults on a protein-sparing modified fast. *Diabetes* 25:494-504, 1976.

6. Bistrian BR, Blackburn GL, Stanbury JB: Metabolic aspects of a protein-sparing modified fast in the dietary management of Prader-Willi obesity. *N Engl J Med* 296:774-779, 1977.

7. Bistrian BR, Winterer J, Blackburn GL, Young V, Sherman M: Effect of a protein-sparing diet and brief fast on nitrogen metabolism in mildly obese subjects. *J Lab & Clin Med* 89:1030-1035, 1977.

8. Bolinger RE, Lukert BP, Brown RW, Gruvara L, Steinberg R: Metabolic balance of obese subjects during fasting. *Arch Intern Med* 118:3-8, 1966.

9. Cahill GF: Starvation in man. *N Engl J Med* 282:668-675, 1970.

10. Flatt JP, Blackburn GL: The metabolic fuel regulatory system: Implications for protein-sparing therapies during caloric deprivation and disease. *Am J Clin Nutr* 27:175-187, 1974.

11. Freeman J, Stegink LD, Fry LK, Sherman BM, Denbesten L: Evaluation of amino acid infusions as protein-sparing agents in normal adult subjects. *Am J Clin Nutr* 28:477-481, 1975.

12. Greenberg GR, Marliss EB, Anderson GH, Langer B, Spence W, Tovee EB, Jeejeeboy KN: Protein-sparing in postoperative patients. *N Engl J Med* 294:1411-1416, 1976.

13. Grey WJ, Karl I, Kipnis DM: Physiologic mechanisms in the development of starvation ketosis in man. *Diabetes* 2:10-16, 1975.

14. Grande F: Man under caloric deficiency. *Handbook of Physiology. Adaptation to the Environment*. Baltimore, Williams and Wilkins, 1964, pp. 911-935.

15. Isaksson B, Sjagren B: A critical evaluation of the mineral and nitrogen balances in man. *Proceedings of the Nutrition Society*, 26:106-116, 1967.

16. Lindner PG, Blackburn GL: Concern regarding the PSMF (Letter to the editor) *Obes and Bariatr Med* 6:41, 1977.

17. Lin RL: *The Last Chance Diet*, New York, Bantam Books, Inc., 1976.

18. Lindner PG, Blackburn GL: Multidisciplinary approach to obesity utilizing fasting modified by protein-sparing therapy. *Obes and Bariatr Med* 5:198-216, 1976

19. Tullis IF, Tullis KF: Obesity. In: *Nutritional Support of Medical Practice*, Hagerstown, Md., Harper and Row, Inc., 1977, pp. 392-406.

20. Van Itallie TB, Yang M, Hashim SA: Dietary approaches to obesity: Metabolic and appetitive considerations. In: *Recent Advances in Obesity Research*. A.N. Howard, Editor. London, Newman Pub. Ltd., pp. 279-281, 1975.

21. Yang M, Van Itallie TB: Composition of weight lost during short-term weight reduction, metabolic responses of obese subjects to starvation and low-calorie ketogenic and non-ketogenic diets. *J Clin Investig* 58:722-730, 1976.

22. Yang MV, Wang J, Pierson RM, Van Itallie TB: Estimation of composition of weight loss in man: A comparison of methods. *J Appl Physiol* 43:331-338, 1977.

23. Nettleton JA, Hegsted DM: Protein-energy interrelationships during dietary restriction: Effects on tissue nitrogen and protein turnover. *Nutri & Metabol* 18:31-40, 1975.

24. PSMF Side Effects In: Ask the Practicing Physician. *Obes and Bariatr Med* 6:100, 1977.

25. Morbidity and mortality weekly report, CDC, Volume 26: p. 383, 1977; and Volume 26: p. 443, 1977.

26. Genuth SM, Castro JH, Vertes V: Weight reduction in obesity by outpatient semistarvation. *JAMA* 230:987-991, 1974.

27. Trustees' Minutes, Medical Society of New Jersey, December 18, 1977, *J Med Soc NJ* 75:180, 1978.



Does it influence your choice of a peripheral/cerebral vasodilator*?

- Vasodilan—compatible with coexisting diseases
- Vasodilan—compatible with concomitant therapy
- Vasodilan—compatible with your total regimen for vascular insufficiency

*__Indications:__ Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows:

Possibly Effective:

1. For the relief of symptoms associated with cerebral vascular insufficiency.
2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease.

Final classification of the less-than-effective indications requires further investigation.

__Composition:__ Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg.

Vasodilan injection, isoxsuprine HCl, 5 mg., per ml.

__Dosage and Administration:__ Oral: 10 to 20 mg., three or four times daily.

Intramuscular: 5 to 10 mg. (1 or 2 ml.) two or three times daily. Intramuscular administration may be used initially in severe or acute conditions.

__Contraindications and Cautions:__ There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

Parenteral administration is not recommended in the presence of hypotension or tachycardia.

Intravenous administration should not be given because of increased likelihood of side effects.

__Adverse Reactions:__ On rare occasions oral administration of the drug has been associated in time with the occurrence of hypotension, tachycardia, nausea, vomiting, dizziness, abdominal distress, and severe rash. If rash appears the drug should be discontinued.

Although available evidence suggests a temporal association of these reactions with isoxsuprine, a causal relationship can be neither confirmed nor refuted.

Administration of single dose of 10 mg. intramuscularly may result in hypotension and tachycardia. These symptoms are more pronounced in higher doses. For these reasons single intramuscular doses exceeding 10 mg. are not recommended. Repeated administration of 5 to 10 mg. intramuscularly at suitable intervals may be employed.

__Supplied:__ Tablets, 10 mg., bottles of 100, 1000, 5000 and Unit Dose; Tablets, 20 mg., bottles of 100, 500, 1000, 5000 and Unit Dose; Injection, 10 mg. per 2 ml. ampul, box of six 2 ml. ampuls.

U.S. Pat. No. 3,056,836

VASODILAN®
(ISOXSUPRINE HCl)
20-mg tablets

Mead Johnson PHARMACEUTICAL DIVISION

© 1976 MEAD JOHNSON & COMPANY • EVANSVILLE, INDIANA 47721 U.S.A. MJL7-4266

This asthmatic isn't worried about his



next breath...

he's active
he's effectively
maintained on

QUIBRON®

Each capsule ar tablespaanful (15 ml) elixir contains theaphylline (anhydrous) 150 mg and glyceryl guaiacalate (guaifenesin) 90 mg. Elixir: alcahal 15%

high theophylline for effective around-the-clock therapy

Quibron may give the asthmatic up to eight hours of bronchodilation with each dose and provides the high dosages of theophylline which are now believed necessary to keep patients free of acute attacks and chronic wheezing.

100% free theophylline

Quibron helps achieve high serum theophylline levels with minimal dosage volume...delivers 100% free theophylline in comparison to many other compounds which contain from 47% to 91% effective theophylline.

individualized theophylline dosage schedule

Today's more efficient usage of theophylline includes individualizing dosage and monitoring serum theophylline levels. The usual recommended dosages of Quibron are: Adults—1 to 2 capsules or tablespoonfuls every 6 to 8 hours; dosage may be cautiously adjusted upward when necessary to a maximum of 2000 mg theophylline per 24 hours. Children under 12—4 to 6 mg theophylline per kg/body weight every 6 to 8 hours; dosage may be cautiously adjusted up to 9 or 10 mg/kg every 6 hours.

Now, for the asthmatic who requires high-dose theophylline therapy for therapeutic serum concentrations

Mead Johnson Pharmaceutical Division announces

QUIBRON®-300

Each capsule contains 300 mg theophylline (anhydraus) and 180 mg glyceryl guaiacalate (guaifenesin)

For Brief Summary, please see the last page of this advertisement.

QUIBRON®-300

Each capsule contains 300 mg theophylline (anhydrous) and 180 mg glyceryl guaiacolate (guaifenesin)

The new high-dose theophylline capsule... for dependable theophylline therapy when products of lower dosage do not adequately control asthma symptoms.

Specially formulated

...for optimal efficacy

Quibron-300 is appropriate therapy for asthma patients whose symptoms are not adequately controlled on lower doses of theophylline, particularly for patients whose theophylline dosage has been adjusted upward to achieve therapeutic serum levels. In one study,[1] an average peak increase in FEV_1 of 35% was demonstrated after a single dose equivalent to one Quibron-300 capsule, and significant improvement in this pulmonary function lasted for nearly eight hours after administration.

...for optimal predictability

One Quibron-300 capsule q6–8h yields therapeutic serum levels (10–20 mcg/ml) in many adults. With a single dose, more than 75% of patients achieved serum levels potentially providing clinical benefit (5–15 mcg/ml). Half-life of theophylline varies widely from patient to patient, making monitoring of theophylline therapy important. Patient response may be monitored clinically if blood levels are not available as long as dosage does not exceed 1200 mg in 24 hours for adults.

...for optimal dosage convenience

The simple, convenient dosage of new Quibron-300—one capsule every six to eight hours—makes it easy for patients to comply with high-dose regimens often required to achieve therapeutic serum levels. Quibron-300 capsules may provide maximum therapeutic value with maximum convenience. In fact, the switch from a low-dose to a high-dose regimen may be accomplished by merely switching capsules, by stepping up to Quibron-300 capsules.

...for minimal theophylline side effects

Adverse reactions to theophylline are related to serum levels and are usually not a problem at concentrations below 20 mcg/ml. Of 45 patients studied[1] after a single dose, only seven reported adverse reactions. The most common reaction was a feeling of lightheadedness by three of these seven patients.

Reference 1. Data on file, Mead Johnson Pharmaceutical Division.

Indications: For the symptomatic treatment of bronchospastic conditions such as bronchial asthma, asthmatic bronchitis, chronic bronchitis, and pulmonary emphysema.

Dosage: Quibron—Adults: 1-2 capsules or 1-2 tablespoonfuls elixir every 6-8 hours. Children under 12: 4-6 mg theophylline/kg body weight every 6-8 hours.

Quibron-300— Adults: 1 capsule every 6-8 hours.

Theophylline dosage may be cautiously increased to 2000 mg/24 hour in adults and 9 or 10 mg/kg every 6 hours in children. Monitoring of serum theophylline levels at higher dosages is recommended.

Precautions: Do not administer more frequently than every 6 hours, or within 12 hours after rectal dose of any preparation containing theophylline or aminophylline. Do not give other xanthine derivatives concurrently. Use in case of pregnancy only when clearly needed.

Adverse Reactions: Theophylline may exert some stimulating effect on the central nervous system. Its administration may cause local irritation of the gastric mucosa, with possible gastric discomfort, nausea, and vomiting. The frequency of adverse reactions is related to the serum theophylline level and is not usually a problem at serum theophylline levels below 20 μg/ml.

How Supplied: Quibron Elixir: Bottles of 1 pint and 1 gallon. Quibron Capsules: Bottles of 100 and 1000 and unit-dose packs of 100. Quibron-300 Capsules: Bottles of 100.

Mead Johnson PHARMACEUTICAL DIVISION

© 1978 Mead Johnson & Company • Evansville, Indiana 47721 U S A

MJL 7-4280

Pseudotumors of the Arm Following Injections of Procaine Polyvinyl Pyrrolidone: Report of Two Cases

SIMON SOUMERAI, M.D., Voorhees*

Two patients developed pseudotumor of the arm following injection of procaine polyvinyl pyrrolidone (PVP). The histologic findings in these patients are discussed. The biologic properties of PVP are briefly reviewed.

Polyvinyl pyrrolidone (PVP) is a macromolecular substance which has been used in the past as a plasma substitute. More recently, in combination with procaine, it has been administered subcutaneously as an alleged cure for many ailments.

In the past nine years, two patients were admitted to West Jersey Hospital for treatment of a tumor of the arm. Excisional biopsies revealed a massive accumulation in the subcutaneous tissue of a basophilic globular material. In both cases, a history of procaine PVP injection was obtained. In one case, similar material had been noted in liver and omental biopsies done nine months prior to the removal of the arm tumor.

The purpose of this paper is to bring this iatrogenic disease to the attention of the medical community and especially pathologists as additional cases most likely will be seen.

CASE REPORTS

Case 1—A 68-year-old white female was admitted to West Jersey Hospital for removal of a large mass of the left arm. Excisional biopsy consisted of multiple fragments of firm yellowish-white tissue aggregating 6 x 4 x 1 cm. Histologically, a massive accumulation in the subcutaneous tissue of a basophilic globular material present both in histiocytes and extracellularly was noted (Figure 1). The deposits were associated with areas of necrobiosis and focal lymphocytic infiltrates. A history of procaine PVP injection was obtained at this time. An open liver biopsy and an omental biopsy done nine months before, had revealed very small amounts of similar material. In the liver, the foreign substance had been noted in Kuppfer cells. Cirrhosis of the liver also was present.

Case 2—A 63-year-old white male was admitted to West Jersey Hospital because of a tumor of the right upper arm. X-ray studies revealed a soft tissue mass. An initial biopsy of the mass showed fibrous tissue with areas of basophilic degeneration suggestive of a plexiform neurofibroma. Excisional biopsy consisted of an ellipse of skin measuring 12 x 4 cm with opposed fibroadipose tissue measuring 3.5 cm in thickness. Histologically, skin and subcutaneous tissue contained a basophilic globular material present inside histiocytes and extracellularly. Extracellular material was encompassed by thin fibrous septa fusing in places to form broader fibrous trabeculae (Figure 2). Deposits showed a strong affinity for congo red stain. Foreign material was thought to represent PVP. A history of PVP injections was obtained.

*From the West Jersey Hospital, Eastern Division in Voorhees, where Dr. Soumerai is Associate Pathologist. He also is Clinical Associate Professor of Pathology at Jefferson Medical College, Philadelphia. Correspondence may be addressed to Dr. Soumerai at West Jersey Hospital, Eastern Division, Evesham Road, Voorhees, New Jersey 08043.

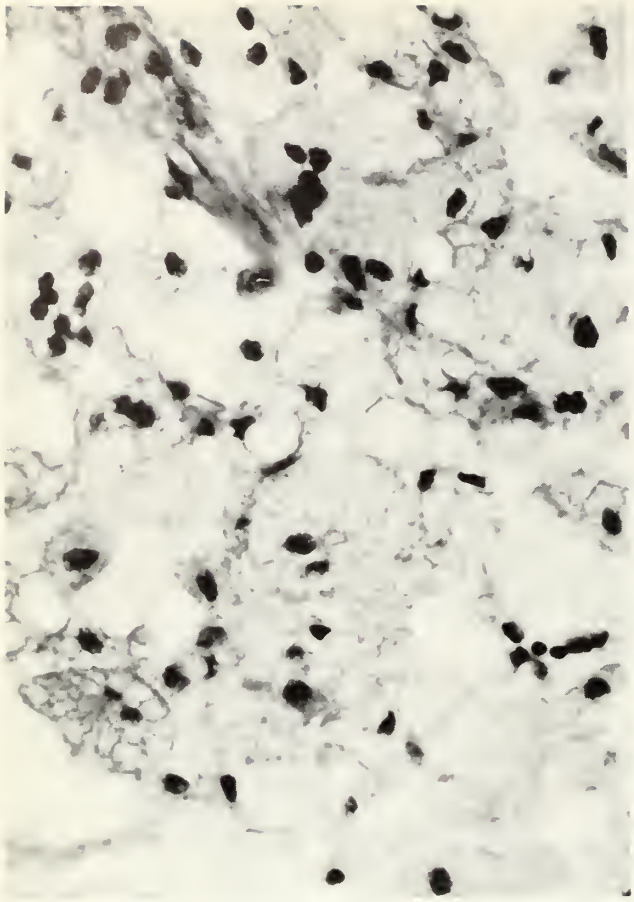


Figure 1 – Section of the pseudotumor of the arm of Case 1 showing globular material in histiocytes (hematoxylin and eosin stain X400).

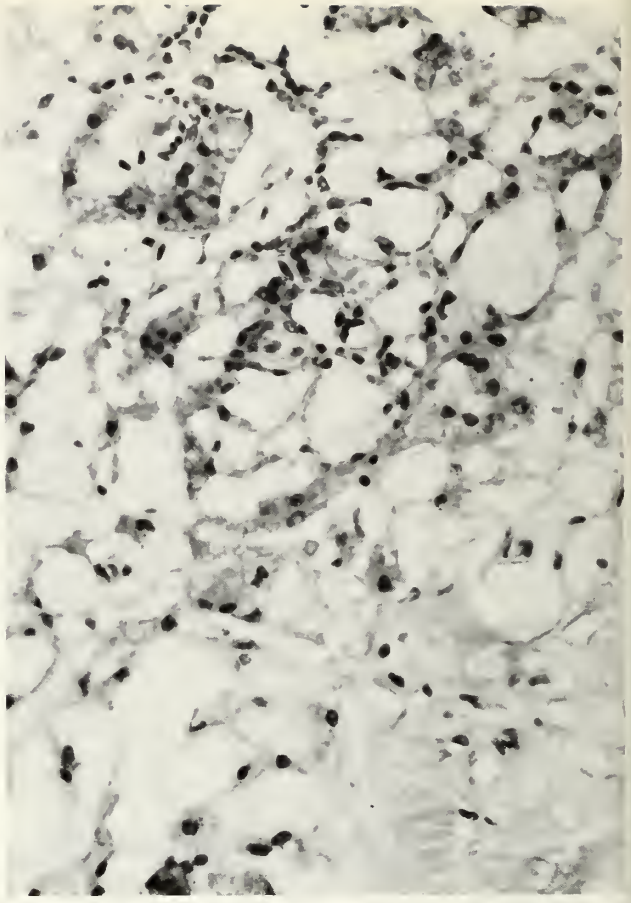


Figure 2 – Section of the pseudotumor of the arm of Case 2 showing globular material both inside histiocytes and extracellularly with formation of bands of fibrosis (hematoxylin and eosin X100).

DISCUSSION

Basophilic globular material noted in our two patients is morphologically similar to material seen in liver of patients having received intravenous polyvinyl pyrrolidone and showed, also, the same affinity for Congo red stain.[1] Repeated injections of PVP in rabbits produced a foam cell storage phenomenon seen in the spleen, lymph nodes, bone marrow, adrenal medulla, liver, lungs and thymus.[2] It has been demonstrated by injecting PVP tagged with radioactive material that two-thirds is eliminated in first 24 hours in urine, and that the unexcreted portion presented a distribution consistent with that of any inert material of large molecular size.[3] It was also shown that in mice, storage of PVP in the reticuloendothelial system resulted in impaired functional activity of this system.[4]

In our two cases, dosage schedule is not available. PVP was found in subcutaneous tissues inside histiocytes and extracellularly. Its storage was associated with a mild to moderate fibroplastic reaction and resulted in the formation of pseudotumors. In one case, secondary distribution of material in liver and omentum was demonstrated. Cirrhosis noted in this case did not appear to be related to the relatively small amount of PVP present. No impaired functional activity of the reticuloendothelial system was apparent.

REFERENCES

1. Gall EA, Altemeier WA, *et al:* Liver lesions following intravenous administration of polyvinyl pyrrolidone (PVP). *Am J Clin Path* 23:1187-1198, 1953.
2. Nelson AA, Lusky LM: Pathological changes in rabbits from repeated intravenous injections of persiton (polyvinyl pyrrolidone) or dextran. *Proc Soc Exper Biol & Med* 76:765-767, 1951.
3. Loeffler RK, Scudder J: Excretion and distribution of polyvinyl pyrrolidone in man as determined by use of radiocarbon as a tracer. *Am J Clin Path* 23:311-321, 1953.
4. Stern K: Effect of polyvinyl pyrrolidone on reticuloendothelial storage. *Proc Soc Exper Biol & Med* 79:618-623, 1952.

Mobile Bronchial Papilloma Spontaneously Expectorated

A. MAJEED MEMON, M.D.
D. KUMAR RAMISETTI, M.D.
L. FRED AYVAZIAN, M.D., East Orange*

A patient with three episodes of slowly resolving left-lower-lobe pneumonia was found to have a papilloma which occluded the bronchus, moved with respiration and coughing, sliding back and forth between the opening of the left lower-lobe bronchus and the tracheal carina. After unsuccessful attempts to resect the tumor through the bronchoscope, the mass was discharged in toto by spontaneous expectoration.

The solitary papilloma of the bronchus is a rare tumor, particularly among adults.[1] As with all forms of bronchial obstruction, cough and hemoptysis, localized expiratory wheezing, and pulmonary infection distal to the papilloma are common consequences.[2] This report describes an instance in which impressive features were the dynamic cyclic sliding of the papilloma within the bronchial lumen and herniation of the tumor to the level of the carina. Consideration of resection became unnecessary when the patient expectorated the entire tumor.

CASE REPORT

A 54-year-old man entered the hospital complaining of pleuritic pain in the left chest, cough, and expectoration of yellow-colored sputum for three months. He was treated with cephalexin for a left, lower-lobe infection, but over a two-month period he showed no improvement and lost 30 pounds. At least once his sputum contained fresh blood. He had two previous episodes of pneumonia, ten and six years earlier, both also in the left lower lobe and with slow resolution.

On admission the patient's temperature was 99° Fahrenheit and it never subsequently rose above this level. Breath sounds were diminished posteriorly over the base of the left lung, but wheezing was not heard. Roentgenograms of the lungs showed patchy densities judged to represent consolidation and diminished volume of the left lower lobe (Figures 1 and 2).

Transnasal fiberoptic bronchoscopy disclosed an approximately 5 mm by 5 mm rounded and fleshy, dark red mass, pebbled in the texture of a mulberry, almost totally occluding the left main-stem bronchus (Figure 3). The mass was freely mobile and slid back and forth to the carina with expiration and with coughing; on inspiration it descended to the level of the lower lobe bronchus. Histologic examination of the biopsy specimen from this structure showed a villous tumor covered with pseudostratified ciliated columnar epithelium, metaplastic to a stratified squamous type in some regions (Figure 4).

The stroma consisted of connective tissue and blood vessels with a few inflammatory cells. The tumor was classified as a papilloma. Subsequently, parts of the tumor were removed piecemeal through a rigid bronchoscope but the occlusion was never relieved, the bronchus distal to the polypoid mass was never visualized, and a stalk to the tumor never seen. One week following admission the patient

*Dr. Memon is Fellow, Pulmonary Disease Section, Veterans Administration Hospital, East Orange, and Clinical Instructor of Medicine, CMDNJ, New Jersey Medical School. Dr. Ramisetti is Staff Physician, Pulmonary Disease Section, Veterans Administration Hospital, East Orange, and Clinical Instructor of Medicine, CMDNJ, New Jersey Medical School. Dr. Ayvazian is Chief, Pulmonary Disease Section, Veterans Administration Hospital, East Orange and Professor of Medicine, CMDNJ, New Jersey Medical School. Correspondence may be addressed to Dr. Memon at the hospital.





Figures 1 and 2 – Chest roentgenogram at admission showing patchy densities with diminished volume of left lower lobe.

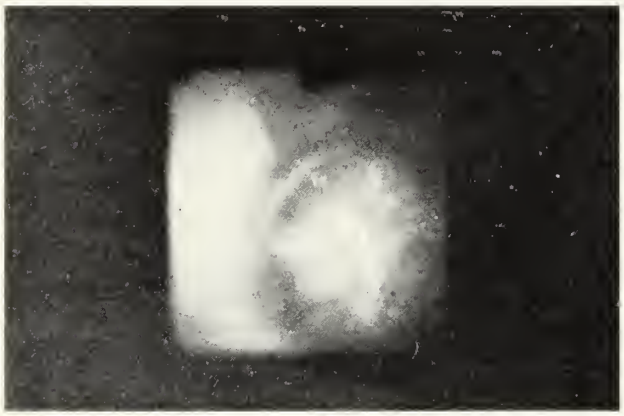


Figure 3 – Papilloma at turn of left main stem bronchus, photographed through fiberoptic bronchoscope. Note highlights over small nodulations.



Figure 4 – Tumor biopsy specimen showing pseudostratified ciliated columna epithelium (above), metaplastic to stratified squamous type (below); stroma of connective tissue, blood vessels and inflammatory cells (hematoxylin and eosin stain; original magnification: X 50).

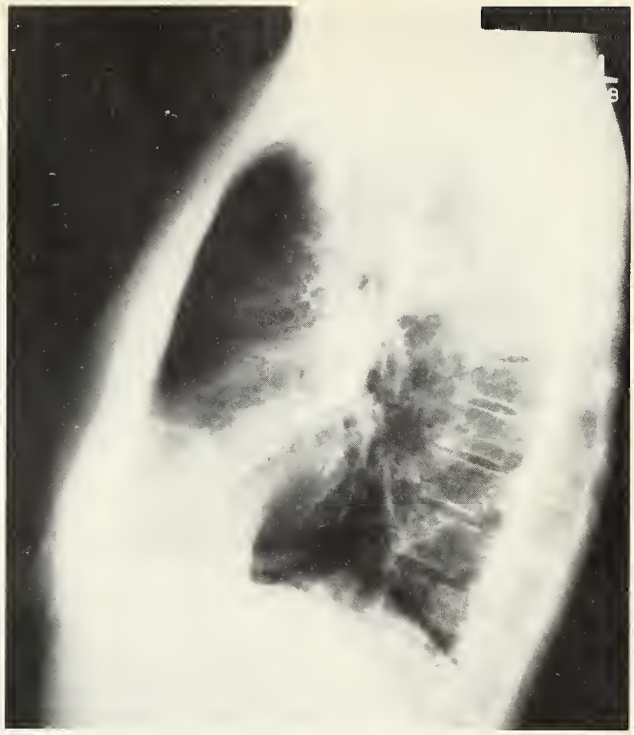
spontaneously expectorated a "chunk of meat" which was lost into the toilet bowl. Bronchoscopy now showed the trachea and the bronchial tree to be normal bilaterally. No trace of the tumor remained and the left lower-lobe bronchus could be seen clearly with only a small mucosal area of reddening possibly marking the former attachment of the tumor. The patient became asymptomatic and subsequent roentgenograms indicated reaeration of the left lower lobe (Figures 5 and 6). Repeat pulmonary function studies showed improvement in the Forced Vital Capacity from 3.01 liters (71 percent of predicted) to 3.66 liters (86 percent of predicted), an improvement of 22 percent. A bronchogram now defined normal patency and architecture throughout the left lower lobe (Figure 7). The patient was discharged and for over one year he has remained well, without further episodes of pulmonary infection.

DISCUSSION

Papillomas, the most common laryngeal tumors in children, infrequently occur in adults.[1] They may arise at the site of a former tracheostomy, but involvement of the lower respiratory tract without laryngeal disease is rare, estimated at two to three percent.[1] In another series of 101 patients with laryngeal papillomas, only four showed distal involvement.[3] Papillomatosis of childhood, followed for decades, only rarely transforms to cancer;[1] when this occurs, the cell type is apt to be well-differentiated squamous cell with local invasion.[5] Excision by surgery is not always possible but cure by radiotherapy has been reported.[4]

Classification of bronchial papillomas into traditional categories is difficult[5] since the cellular genesis is uncertain, the histologic structure varies, and the clinical manifestations





Figures 5 and 6—Chest roentgenogram showing reaeration of left lower lobe.

may be complex.[6] A viral etiology could account for the tendency of the tumors to recur, sometimes in multiples, throughout the respiratory tract.[7] The major differentiation is from squamous-cell carcinoma. Small superficial biopsy specimens of well-differentiated papillary squamous cell carcinoma are easily interpreted as squamous papilloma. The absence of finger-like projections is helpful, and deeper biopsies usually reveal the true diagnostic architecture. The histologic picture may also resemble the mucoepidermoid variant of bronchial adenoma, which often presents as a papillary mass.

The patient here presented is characteristic for a benign solitary papilloma in most respects except for its remarkable mobility, simulating a piston in a cylinder, and for its spontaneous cure by expectoration.

REFERENCES

1. Al-Saleem T, Peale A R, Norris C M: Multiple papillomatosis of the lower respiratory tract: Clinical and pathological study of eleven cases. *Cancer* 22:1173, 1968.
2. Jackson D A, Hatch H B: Solitary benign squamous papilloma of the bronchus: Report of two cases. *Am Rev Respir Dis* 97:699, 1968.
3. Majoros M, Parkhill E M, Devine K D: Papilloma of the larynx in children: A clinicopathological study. *Am J Surg* 108:470, 1964.
4. Blackman J, Cantril S T, Lund P K, Sparkman D: Tracheobronchial papillomatosis treated by roentgen irradiation: A report of two cases. *Radiol* 73:598, 1959.
5. Dybicki J, Zmarzlik Z, Dabrowski J, Tokarczyk T: Isolated bronchial papillomas, *Polish Med J* 11:380, 1972.
6. Drennan J M, Douglas A C: Solitary papilloma of a bronchus, *J Clin Path* 18:401, 1965.
7. Le Roux B T, Williams M A, Kallichurum S: Squamous papillomatosis of the trachea and bronchi. *Thorax* 24:673, 1969.

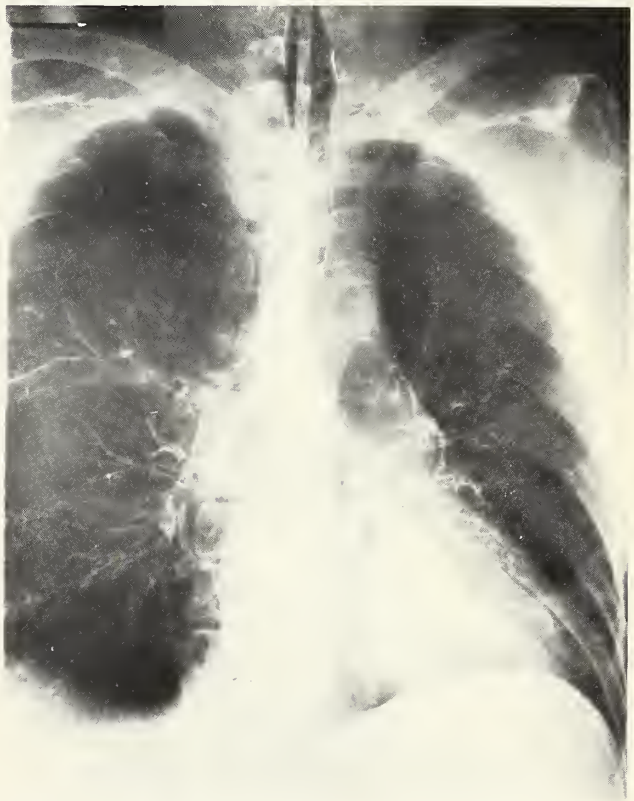


Figure 7—Bronchogram of left lower lobe showing patency of all airways.

Early Diagnosis of Acoustic Neuromas—a Key to Excellent Results

OTAKAR R. HUBSCHMANN, M.D.
ROGER W. COUNTEE, M.D., East Orange
ABBOTT J. KRIEGER, M.D., Newark

Current state of the art utilizing microsurgical techniques makes total removal of an acoustic neuroma possible, with preservation of both the facial and cochlear nerves in most cases, providing the diagnosis is made early and the tumor is small; a late diagnosis with correspondingly larger tumor only allows a subtotal removal with high incidence of late recurrence. Utilizing modern anesthetic techniques, it is possible to operate on elderly people with good results. The general practitioners and internists play the most important role in making an early diagnosis of acoustic neuroma. The hearing tests and tomograms of the petrous bone are the basic diagnostic studies, while the CAT scan may be normal even in the presence of a significant size tumor.

The acoustic neuroma is a benign tumor arising from the eighth cranial nerve in the cerebellopontine angle. Ever since the turn of the century, when the first patient was successfully operated on for this problem, it has presented a great challenge to neurosurgeons.[1-5] Despite a benign histological appearance and slow growth, the position of the tumor in the vicinity of the vital structures of the brainstem made early attempts at removal hazardous. The morbidity and operative mortality were unacceptably high. For this reason, Cushing believed that only partial intracapsular removal should be undertaken.[1] Although the immediate surgical mortality was reduced by this approach, the delayed recurrence resulted in death of most patients.[2,6] With improving surgical skills, these figures improved somewhat. However by 1946, Givre and Olivecrona, who reported 304 acoustic neuromas, were able to remove 217 totally with a mortality of 23.5 percent; with incomplete removal, the mortality was 29 percent.[3] Improved technology in recent years has made it possible to diagnose and extirpate these tumors earlier, when the tumor is small, thus decreasing the operative mortality and neurological complications, and preserving the function of the facial nerve and in some instances hearing as well.[5,7] The general awareness of this condition by the practicing physicians, with early diagnosis and treatment, has lead to better surgical results.

The following reports demonstrate the current state of the art and the advantages of early diagnosis and surgical treatment. Three patients are reported in which judgment dictated a different surgical approach to achieve a satisfactory outcome.

Case #1 – A 70-year-old, right-handed man, was admitted with dizziness, tinnitus, and unsteadiness of gait increasing in severity over several months. Although he was retired, he was very active until four months prior to his admission when he noticed that he had difficulty walking. His neurological examination showed minimal involvement of the fifth, seventh, and eighth cranial nerves and mild hyperreflexia on the left side of his body. A computed tomographic (CT) scan showed a lesion in the right cerebellopontine angle extending toward the brainstem and mild hydrocephalus. The audiological studies and tomograms of the internal auditory meatus in the petrous pyramid confirmed the diagnosis of a cerebellopontine angle tumor. Surgery was performed, and because of the patient's age, it was decided to use the subtotal intracapsullar approach. The tumor, which was approximately the size of a walnut, compressed and stretched the seventh and eight cranial nerves, displaced the fifth nerve superiorly and compressed the lower

*From the Section of Neurological Surgery, CMDNJ, New Jersey Medical School, Newark and the Veterans Administration Hospital, East Orange, New Jersey. The authors may be addressed at the Veterans Administration Hospital, Neurosurgical Department, East Orange 07019.

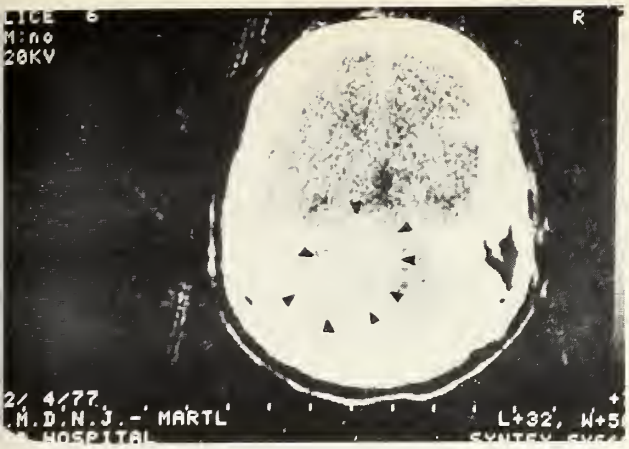


Figure 1—CT scan of the posterior fossa in Case 2 showing the tumor mass which also extends supratentorially. Notice the large volume of the tumor mass as outlined by the markers.

cranial nerve complex (ninth, tenth, and eleventh) inferiorly.

The medial aspect of the tumor extended to the brainstem. No attempt was made to dissect the brainstem arteries attached to the tumor capsule; the cranial nerves were not manipulated. The tumor was removed piecemeal after the capsule was opened and a total intracapsular removal was achieved. Postoperatively, the patient was awake and oriented and had no deterioration in neurological functioning. Six days postoperatively a repeat CT scan showed enlargement of the ventricles and a shunting procedure was performed. The patient left the hospital in two weeks.

Case #2—A 34-year-old mother of four children presented with headaches, left-sided hearing loss, and diminished visual acuity which developed insidiously over several years. Neurological examination revealed bilateral papilledema, right-sided hyperreflexia and signs of involvement of cranial nerves five through twelve on the left. CT scan showed a giant cerebellopontine angle tumor filling most of the posterior fossa and extending above the tentorium (Figure 1).

Surgery was planned in two stages; the first procedure was a subtotal intracapsular removal of the tumor. Her postoperative course was uneventful. After discharge the patient was lost to follow up for several months. When seen again, her suboccipital decompression was bulging and her vision had worsened. A repeat CT scan showed small size ventricles with residual tumor in the posterior fossa. At surgery, despite careful and lengthy dissection, only 80 percent of the tumor could be removed safely. A ventriculo-peritoneal shunt was placed postoperatively. She is doing well except for her poor vision.

Case #3—A 33-year-old man was referred with a suggestive diagnosis of an acoustic neuroma made from the history of unilateral decreased auditory acuity and tinnitus with a sensory-neural deficit on audiological studies. His examination was entirely normal except for decreased hearing in the right ear; only one of the battery of audiological tests was indicative of a retrocochlear lesion. Tomography of the internal auditory meatus confirmed widening of the canal on the right side (Figure 2). The CT scan also confirmed these findings but failed to show a mass lesion in the cerebellopontine angle. A pantopaque examination (positive contrast cisternography) of the cerebellopontine angle region showed a small filling defect confined to the acoustic meatus (Figure 3). At surgery the tumor was significantly larger than expected, displacing the eighth nerve inferiorly

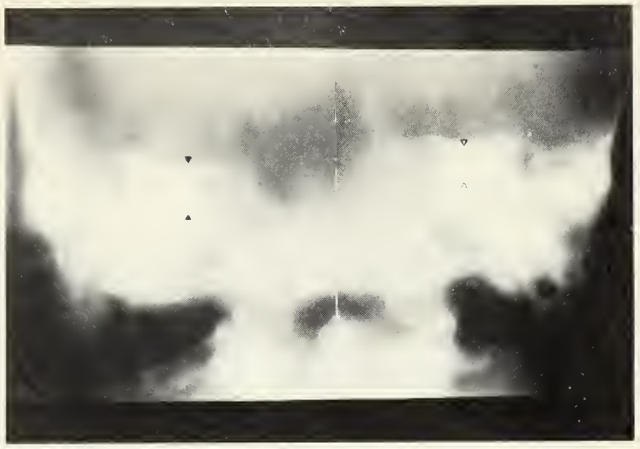


Figure 2—Positive tomography of the internal acoustic meatus in Case 3. The enlargement and bony erosion by the tumor on the right is evident (black arrows). The normal left internal acoustic meatus is shown for comparison (white arrows). The size of the internal acoustic meatus is obtained by measuring the distance between the superior and inferior arrows.



Figure 3—Pantopaque cisternography outlining the tumor in Case 3. The tumor is seen as a radiolucent area outlined by the arrows surrounded by a radiopaque contrast material. Although the pantopaque outlines a tumor mass which appears quite small, at surgery the tumor was found to be significantly larger.

and the seventh nerve anterosuperiorly. During a long and meticulous dissection, using the operating microscope for magnification it was possible to separate the tumor from the seventh nerve and also to save a significant portion of the eighth nerve. The postoperative course was entirely uneventful, the patient was ambulatory on the second postoperative day. Hearing on the right was not worsened by the surgery.

DISCUSSION

Modern anesthetic and microsurgical techniques, and highly specialized postoperative care allow major surgical procedures to be performed on elderly patients or those with giant tumors who would not have been considered favorable surgical candidates even a few years ago. Case 2 illustrates the consequence of late diagnosis as the patient presented with a large tumor which precluded its total extirpation. Although the literature from the era before the surgical microscope became available shows the mortality for reoperation to be in the vicinity of 40 percent, these numbers do not apply today.[3,8]

In making a diagnosis of an acoustic neuroma, it is important to recognize the value of the diagnostic study

profile.[9] The most important aspect of the diagnosis is a clinical suspicion aroused by a history of an insidious unilateral hearing loss. Specialized auditory tests have played an integral part in the early diagnosis of this lesion.[10] The plain skull x-rays and polytomography of the internal auditory meatus usually suggest the presence of a tumor eroding the bony confines of the meatus. The value of CT scan in diagnosis of these lesions is less than in other brain conditions, because it may be falsely negative. It may or may not become positive with the injection of contrast material even though bony erosion can be demonstrated on some sections of the CT scan. In Case 3 no mass lesion extending into the posterior fossa or displacement of the fourth ventricle could be identified on CT scan, although it was demonstrated by other studies and was present at surgery. Invasive tests such as positive contrast (pantopaque) cisternography, pneumoencephalography, and vertebral angiography confirm the diagnosis but must be performed in the hospital. Auditory tests, skull x-rays, tomography and CTS can be done on an outpatient basis.

REFERENCES

1. Cushing H: *Tumors of the Nervus Acusticus and the Syndrome of the Cerebellopontine Angle*. Philadelphia, Saunders, 1917.
2. Scarff J E: Fifty years of neurosurgery, 1905-1955. *Surg Gyn Obstet* 101:417-513, 1955.
3. Givre H, Olivecrona H: Surgical experiences with acoustic tumors. *J Neurosurg* 6:396-407, 1949.
4. Ballance C: *Some Points in the Surgery of the Brain and Its Membranes*. London, MacMillan, 1907.
5. Rand R W, Kurze T: Facial nerve preservation by posterior fossa transmeatal microdissection in total removal of acoustic tumors. *J Neurol Neurosurg Psych* 28:311-316, 1965.
6. Dandy W E: Results of removal of acoustic tumors by the unilateral approach. *Arch Surg* 42:1026-1033, 1941.
7. Rand R W, Kurze T: Preservation of vestibular, cochlear and facial nerves during microsurgical removal of acoustic tumors. Case report. *J Neurosurg* 28:158-161, 1968.
8. Olivecrona H: Acoustic tumors. *J Neurosurg* 16:6-13, 1967.
9. Youmans J R (Editor): *Neurological Surgery*, Vol. 3, Philadelphia, Saunders, 1973.
10. Jerger J F: Hearing tests in otological diagnosis. *ASHA* 4:5, 1962.



Tolinase®
tolazamide, Upjohn

Please contact your Upjohn representative for additional product information.

Upjohn

J-5695-6

©1977 THE UPJOHN COMPANY

THERAPEUTIC DRUG INFORMATION

This information is compiled by the Schwartz Inter-National Pharmaceutic and Therapeutic Drug Information Center of the Brooklyn College of Pharmacy, Long Island University.*

1. Do you have any information concerning cimetidine being associated with perforation of chronic peptic ulcers?

Cimetidine (Tagamet, SKF), an H_2 receptor antagonist, has been marketed in the United States since August, 1977. It has been acclaimed generally for its success in treating duodenal ulceration, and there have been reported relatively few side effects to date. Recently, however, there have been reports of perforation of chronic peptic ulcers, possibly associated with cimetidine therapy.

Wallace *et al.*[1] reported that three patients with chronic peptic ulcers developed acute perforation within two weeks after abrupt cessation of cimetidine treatment. The authors indicated that the perforations may have occurred because of rebound hyperacidity after cimetidine had been stopped. Unlike the official product-information recommendations (cimetidine is approved only for short-term therapy—up to eight weeks—for the treatment of duodenal ulcer[2]), these authors recommended that after the initial six weeks of therapy, a maintenance course of 400 mg at night be given for an additional three months unless the ulcer healing has been demonstrated endoscopically. The authors believe that this treatment regimen should be considered, even if there is no symptomatic response to the initial course, because it should prevent perforation and reduce the recurrence rate of ulcers.

Ellis *et al.*[3] reported a case of perforation of duodenal ulcer during cimetidine treatment. A 72-year-old man was given cimetidine, 1 g per day, for duodenal ulceration with bleeding. His symptoms abated and endoscopy showed ulcer healing. After discontinuing the drug for six weeks, when symptoms recurred he took the drug continuously for several weeks until he underwent surgery. A large perforated ulcer on the superior wall of the first part of the duodenum was shown.

In conclusion, according to preliminary reports, perforation of chronic peptic ulcer may have been associated with the abrupt cessation of cimetidine therapy.

*The Center serves as a source of intelligence on therapeutic and pharmaceutic information not readily available to physicians, at no charge to them, and provides this information with minimal time involvement. It is staffed by trained pharmacists; Jack M. Rosenberg, Pharm. D., Associate Professor and Chairman, Division of Clinical Pharmacy, Brooklyn College of Pharmacy, is Director and Walter Modell, M.D., Emeritus Professor of Pharmacology at Cornell University Medical College, is pharmacologist consultant. The service is available Monday through Friday from 9 a.m. to 4:30 p.m.—telephone (212) 622-8989 or 303-2735. Responses to these questions were prepared by J. M. Rosenberg, M.S., Pharm.D.; A. Bakst, Pharm.D.; P. Sangkachand, M.S., R.Ph.; Doris Lau, B.S.

REFERENCES

1. Wallace WA *et al.*: Perforation of chronic peptic ulcers after cimetidine, *Br Med J* 2:865-866, 1977.
2. Package Insert; Tagamet®, SK&F Laboratories, Philadelphia, Pennsylvania, August, 1977.
3. Ellis DJ *et al.*: Complications with cimetidine. *Infarma* (abst. from *Br Med J*) 118:4, 1977.

2. Do you have any information concerning the use of streptozocin in the treatment of pancreatic islet cell carcinoma?

Streptozocin, currently under investigation by Upjohn in the United States, is a naturally occurring nitrosourea antibiotic which is diabetogenic in laboratory animals. The drug has shown clinical activity against islet cell carcinomas in man. It also has shown activity against other human tumors, including malignant carcinoid, lung cancer, squamous cell carcinoma of the oral cavity, synovial sarcoma, and adenocarcinoma of the gallbladder.

In a study by DuPriest *et al.*[1], 22 patients with various types of tumors, including seven with pancreatic tumors, were treated with streptocozin in six weekly intravenous doses. Three complete responses and two partial responses occurred in pancreatic tumor patients. The remaining patients either exhibited no responses or progression of their diseases. Side effects included transient proteinuria, transient azotemia, reduction of creatinine clearance, burning pain at site of injection, nausea, vomiting, fasting blood sugar (FBS) change, decreased platelet count, decreased hemoglobin, and duodenal ulcer.

The clinical experience with streptozocin in 52 patients with metastatic islet cell carcinoma was analyzed by Broder and Carter.[2] The drug was given intravenously to 44 patients and intra-arterially to eight patients, most often on a weekly schedule of administration with the dose based on body surface area. Biochemical responses, including normalization of insulin and glucose, were seen in 64 percent of the cases. Insulin responses occurred two to three weeks after drug administration. A significant increase in one-year survival rate and a doubling of median survival were shown for the responders as compared with the non-responders. Acute toxicity, consisting of nausea and vomiting, was observed in 98 percent of the cases, whereas renal or hepatic toxicity was seen in 65 percent and 67 percent of the cases, respectively. Hematological toxicity, observed in 20 percent of the cases, was mild. Renal and hepatic toxicity were usually reversible, but five patients died in renal failure.

Schein *et al.*[3] treated eight patients with metastatic insulinoma and malignat carcinoid with streptozocin. One out of four patients with metastatic insulinoma had complete remission lasting for one year. The other three had no responses. No objective responses were observed in the four patients with malignant carcinoid. The authors conclude that streptozocin is the best form of chemotherapy presently available for malignant insulinoma.

In conclusion, it appears that streptozocin is an effective chemotherapeutic drug in the treatment of pancreatic islet cell carcinoma.

REFERENCES

1. duPriest Jr RW *et al.*: Streptozotocin therapy in 22 cancer patients. *Ca* 35:358-367, 1975.
2. Broder LE; Carter SK: Pancreatic islet cell carcinoma. *Ann Intern Med* 79:108-111, 1973.
3. Schein P *et al.*: Streptozotocin for malignant insulinomas and carcinoid tumor. *Arch Intern Med* 132:555-561, 1973.

3. Is there an interaction between carbamazepine and propoxyphene?

Carbamazepine (Tegretol®) is indicated for the management of epilepsy in patients unresponsive to other antiepileptic agents, and is also effective in the treatment of trigeminal neuralgia, a disorder characterized by severe pain of the face, lips, and chin.[1]

Approximately 60 percent of all patients taking carbamazepine experience some side effects. Of those who experience side effects, the most frequent type reported involve the central nervous system, including ataxia, drowsiness, tinnitus, diplopia, and nystagmus.[2]

The therapeutic anticonvulsant serum concentration of carbamazepine is estimated to be two to eight micrograms per milliliter. Some investigators have noted that nystagmus frequently occurs when plasma levels are greater than four micrograms per milliliter and that ataxia, dizziness and anorexia occur when plasma levels are 10 micrograms or greater per milliliter.[3]

Dam and Christiansen[4] studied the effects of propoxyphene hydrocloride (Darvon®) on the metabolism of carbamazepine given alone or in combination with other antiepileptic drugs. Propoxyphene HCl 65 mg, three times a day, was administered to seven outpatients, six with epilepsy and one with trigeminal neuralgia. Two patients stopped taking propoxyphene after two days because of side effects characterized by headache, dizziness, ataxia, nausea, and tiredness. Levels of plasma carbamazepine and its metabolites were analyzed in the five remaining study patients. It was found that combined treatment resulted in significant increases in plasma carbamazepine levels in all five patients studied. Four of these patients had carbamazepine levels over 10 micrograms per milliliter and three patients had symptoms and signs of drug intoxication. The authors' data suggested that propoxyphene inhibits the oxidation of carbamazepine thus resulting in higher plasma levels of carbamazepine.

Considering the widespread use of propoxyphene and the chance of concomitant administration with carbamazepine, it is important that physicians and pharmacists be aware of this possible interaction. Plasma carbamazepine levels should be determined periodically in patients receiving carbamazepine and propoxyphene concurrently.

REFERENCES

1. Anon: *Physicians' Desk Reference,* 31st edition, Medical Economics, Oradell, New Jersey, 1977, p. 838.
2. Penovich PE; Morgan JP: Carbamazepine: A Review. *Drug Therapy* 6:187-193, 1976.
3. Anon: *American Hospital Formulary Service.* (Carbamazepine) American Society of Hospital Pharmacists, Washington, D.C., 1975.
4. Dam M; Christiansen J: Interaction of propoxyphene with carbamazepine, *Lancet* 2:509, 1977.

Selected Abstracts with Comments*

Psychiatric Status of Diabetic Youth Matched with a Control Group. Simonds J F—*Diabetes* 26:21 (1977).

The psychiatric status of 40 diabetic youths in good control and 40 diabetic youths in poor control was compared with the psychiatric status of a matched nondiabetic control group selected from a family practice clinic. The good-control diabetic group had significantly fewer youths with conflicts when compared with the control group and the poor-control diabetic group. Results of a parent questionnaire concerning behavior problems revealed significant differences only for two items—"anxiety" and "depression"—which were more frequent problems for those in poor control. The good-control diabetic group seemed to be in the best mental health, and their families were less prone to divorce. It was speculated that youths in poor control were more anxious because of the progression of the diabetic condition which became less predictable as the control worsened. The results of this study seemed to indicate that there was no need to worry about the negative emotional effects of a structured medical regimen for diabetes.

Comment: This is an extremely controversial area with many conflicting reports. In this report, as in many others, no specific definition is given for "good-control" vs "poor-control" diabetics. There are many diabetologists who question a differentiation made purely on clinical data or diaries of urine analyses, noting that a 24-hour urine glucose measurement and blood lipids are also necessary. I've recently reviewed the literature in this area and it is my impression that having diabetes as a child does create more stresses in one's development, but that a child with an adequate ego from a psychologically healthy, supportive family can become a "stronger" person (one who can cope well with multiple stresses). (J. Tarnow, M.D.)

Quality of Survival after Severe Birth Asphyxia. Thomson AJ, *et al*—*Arch Dis Child* 52:620 (1977).

Thirty-one survivors of severe birth asphyxia (five minute Apgar score < 4) were followed up at age ten years. Matched birthweight (etc.) controls were assessed. Twenty-nine of 31 asphyxiated and all controls had "no serious neurological or mental handicap." Psychologic function was no different in the two groups.

Comment: The authors state: "We considered that the quality of life enjoyed by the large majority of the survivors was such as to justify a positive approach to the resuscitation of very severely asphyxiated neonates." Although this study is small in size, it is long in duration of follow-up. It is most encouraging and suggests that we must continue to be vigorous in our efforts to resuscitate asphyxiated neonates. (R. Rapkin, M.D.)

Neurologic Sequelae in Children Surviving Mechanical Ventilation in the Neonatal Period. Marriage K J, *et al*—*Arch Dis Child* 52:176 (1977).

All 376 ventilated neonates (many of whom died soon after birth) yielded 77 survivors at Hammersmith Hospital between 1966-1973. All 77 were evaluated. Thirty-one percent were below 1500 grams at birth; 36 percent were between 1500 and 2000 grams. Most had RDS and 20 percent were small for gestatorial age. Neurologic sequelae were noted in only 15 percent of these children. In a survey of 444 unselected survivors of mechanical ventilation in the newborn period published from 1969-1976, 16 percent had neurologic sequelae. The majority of mechanically ventilated infants who survive are normal neurologically in follow-up. The follow-up has extended in many for as long as nine years.

Comment: From a non-neonatologist non-neurologist's point of view, it has become apparent that quality neonatal care yields quality children. (R. Rapkin, M.D.)

Acute Lymphoblastic Leukemia (ALL) in Children: Classification and Prognosis. Chessells JM, *et al*—*Lancet* 2:1307 (1977).

ALL now can be classified into four subgroups: T cell type, B cell type, null cell type (neither T nor B) and "common" type (neither T, nor B but reacts to ALL antiserum).

"Common" has a good prognosis especially if the initial WBC count is not high. T cell ALL has a much poorer prognosis. Null cell and B cell ALL also have less good prognoses than "common".

Comment: ALL is a more complex disease than we once thought. Differing regimens now are needed for different cell types. The mortality of those who respond often is related to capable management of infections. The child with ALL should be cared for by the expert (pediatric hematologist/oncologist) with access to infectious disease backup (both laboratory and clinical). (R. Rapkin, M.D.)

*Abstracted from "Pediatric Department Newsletter," RMS, Vol. 2, No. 6 (Feb. 1978). Selections are made and original comments prepared by Richard H. Rapkin, M.D., Professor of Pediatrics, RMS, CMDNJ, and his associates.

Intraventricular Therapy in Neonatal Meningitis. Lee E L, *et al*—*J Pediat* 91:991 (1977).

All 16 infants with gram negative meningitis had ventriculitis. Treatment intraventricularly as well as systemically seemed to improve outcome.

Comment: Many neonates with gram negative meningitis develop ventricular obstruction probably due to exudate from the disease. This converts the meningitis into ventricular closed space infection ("abscess"). In order to prevent or treat this complication one needs effective drug concentrations in the ventricular fluid. Two methods have been proposed—neither yet proved by prospective controlled trials. One involves the intraventricular use of gentamicin as in this study. The other involves use of chloramphenicol (a very diffusible and very toxic drug). One cannot treat neonatal gram-negative meningitis without monitoring effectiveness of therapy by repeated LPs. If rapid sterilization or failure of rapid response clinically does not occur, ventricular tap and appropriate therapy is mandatory. (R. Rapkin, M.D.)

Theophylline for Treatment of Asthma. Weinberger M—*J Pediat* 92:1 (1978).

Theophylline is effective and safe when used in appropriate dosage. "It is the only medication required to eliminate chronic symptoms in over 70% of 172 patients seen at a tertiary care medical center." Cromolyn and/or salbutamol are not as effective. It is well absorbed orally. There is *no* indication for suppositories (contraindicated). It is more toxic when used with ephedrine in fixed-dose combinations and therapeutic synergism or even additive effect are not noted. Dosage usually should be monitored (at least initially) by serum levels.

Comment: This short article presents the details of use of the best drug for asthma we now have. (R. Rapkin, M.D.)

Inappropriate Secretion of Antidiuretic Hormone (ADH) in Children with Bacterial Meningitis. Feigin RD, *et al*—*Am J Clin Nutr* 30:1482 (1977).

Cerebral edema contributes significantly to morbidity and mortality in meningitis. Seventy-two of 124 children with bacterial meningitis had serum Na $<$ 135 meq/L on admission. This was likely due to inappropriate ADH. Sequelae of meningitis (abnormal postmeningitis neurological examination, seizures, subdurals) were more common in the low Na group and the longer the serum Na remained low the more common the sequelae, as well as the longer the level of consciousness was depressed. Careful attention to fluid balance may minimize these sequelae.

Comment: Vigorous rehydration of infants and children with meningitis is contraindicated. The dangers of cerebral edema exceed the dangers of mild to moderate dehydration and rehydration should proceed cautiously. (R. Rapkin, M.D.)

Prolonged Fever of Unknown Origin (F.U.O.) Lohr J A, *et al*—*Clin Ped* 16:768 (1977).

F.U.O. is defined as an illness with fever lasting at least three weeks which remains enigmatic after a week of hospital workup. Fifty-four such children had the following diagnoses eventually made: infections 18 (TBc = 3, UTI = 3); collagen 11 (JRA = 7, Crohns = 3); malignancy 7 (ALL = 3, Lymphoma = 2); Miscellaneous 8 (factitious fever = 2, drug fever = 1); not diagnosed 10.

Comment: Prolonged (under two weeks) fevers in childhood are usually self-limited (probably viral diseases). Those that are true F.U.O.s as here defined are often serious illnesses whose diagnosis matters and is made after a diligent systematic search in most. Suggestions from one who has some experience with these children include:

1. Therapeutic trials of antibiotics are confusing at best and detrimental in many.

2. Careful review of history, physical examination, and sequential reexamination are very valuable.

3. Exploratory laparotomy without good and specific reason for doing same is unwise.

4. Children have the same category of disease as adults with F.U.O.: about 25 percent have infections (including TB and cryptogenic abscesses), 25 percent have collagen diseases, 25 percent have malignancies (usually lymphomas) and 25 percent have miscellaneous causes including Münchansen's disease and drug fever and some of these are never diagnosed (resolve spontaneously).

5. Helpful examinations are repeated PPDs, Gallium scans, GI series with small bowel follow-up but, as stated above, evaluation needs to be individualized and frequent reassessment is very valuable.

DOCTOR:

is your Medical Assistant keeping in step with you?



As medical practice becomes more complicated and more highly specialized, you need more highly trained medical assistants in your office.

Membership in the AMERICAN ASSOCIATION OF MEDICAL ASSISTANTS will help your assistants keep up-to-date and informed of new ideas and techniques. AAMA s continuing education program offers workshops and seminars that will enhance the professionalism of your office employees.

As the first professional organization for medical assistants (founded 1956), AAMA pioneered in developing the only certification program in this field. A medical assistant who successfully completes the basic examination is identified as a Certified Medical Assistant (CMA). Specialty categories include administrative (CMA-A), clinical (CMA-C), and pediatric (CMA-Ped). More than 7,500 certificates have been earned since the first examination was given in 1963.

The AAMA pioneered in the development of curriculum standards for medical assisting programs. The American Medical Association, in collaboration with AAMA, is recognized as an official accrediting agency for such programs by the U.S. Office of Education.

On five different occasions the AMA House of Delegates has passed resolutions commending the objectives of AAMA, endorsing its functions, and urging every physician to encourage medical assistants to join the association in order to benefit from its educational programs.

To help your medical assistants do a better job of helping *you*, urge them to join AAMA—the professional association dedicated to their continuing education. Fill in the attached coupon and mail it today. Your practice deserves the best.

I wish to inquire about membership for my medical assistant in the American Association of Medical Assistants, Inc. Please send more information to:

Name_____

Business Address _____ Phone _____

City _____ State _____ Zip Code _____

Member of county medical society? Yes _____ No _____

County _____

Names of assistants	Addresses
_____	_____
_____	_____
_____	_____

Clip and mail to: American Association of Medical Assistants, Inc., One East Wacker Drive, Chicago, Illinois 60601.

DOCTOR'S NOTEBOOK

Trustees' Minutes March 19, 1978

A regular meeting of the Board of Trustees was held on Sunday, March 19, 1978, at the Executive Offices, Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

CME Liaison Committee . . . Approved a recommendation of the Executive Committee to submit to the AMA the name of James A. Rogers, M.D., for appointment to the Liaison Committee on Continuing Medical Education.

AMA Standing Councils . . . Noted that the Executive Committee believed it inappropriate at this time to submit names for either election or appointment to standing councils of the AMA.

Installment Financing . . . Agreed with the Executive Committee's decision to reject the United Jersey National Bank's proposal for development of a retail installment financing plan for large fees.

Retirement Recognition—Joseph P. Donnelly, M.D. . . . Approved the following proposal for recognition of Joseph P. Donnelly, M.D., retiring AMA Delegate: $100 contribution to the Medical Student Loan Fund; presentation at the second session of the 1978 House of Delegates of a silver tray suitably engraved with dates of service as an AMA delegate, and the signatures of all living delegates and alternate delegates who served with him, past presidents during his fifteen years as a delegate, and the current members of the Board of Trustees.

New Jersey Foundation for Health Care Evaluation . . . Approved the following recommendations of the Executive Committee concerning a request from the New Jersey Foundation for Health Care Evaluation for funding for the development of an IPA/HMO Consortium consisting of county medical societies, the New Jersey Society of Osteopathic Physicians and Surgeons, industry, and other interested parties, whose purpose would be to provide support and information regarding the formation and management of IPAs/HMOs:

1. That the proposal be funded *by the Medical Society of New Jersey* in the amount of $50,000 for its first year of operation (Italics indicate Board amendment).
2. That the money be obtained from a special assessment on the members of MSNJ. (It is anticipated that other participating groups will make proportionate contributions).
3. That one of the objectives of the Consortium shall be to study development of a single statewide IPA/HMO—with a report due the Board within six months of receipt of MSNJ funding.

HSA Activities . . . Approved the following recommendations from the Executive Committee in response to instructions from the Board to that committee:

1. That all county medical societies within each HSA area develop close liaison with one another in disseminating information and working together toward influencing HSA activities.
2. That each county medical society designate *at least* a staff or board of trustees member whose function would be to review and comment to the county society on HSA activities. (Italics indicate Board amendment.)
3. That each county medical society, when it believes its local HSA to be acting in conflict with the concept of good health care delivery, formally, in writing, notify the Medical Society of New Jersey.
4. That the Medical Society of New Jersey hire or designate a staff person to collate such reports, study their validity, and recommend appropriate action to the Board of Trustees.
5. That MSNJ, where indicated, act as an advocate of the county society before the State Health Planning Commission in instances where conflicts have not been resolved at the county level.
6. That the county medical societies—through appropriate articles in *The Journal* and the *Newsletter*—be implored to become knowledgeable and participate in the local meetings of the HSAs.

. . . Directed that the matter concerning HSA activities be included for discussion at the Spring Conference of Presidents and Presidents-Elect.

AMA Maternal and Child Care Meeting . . . Approved a recommendation that Peter A. Beaugard, M.D., be authorized to attend (with expenses paid) the AMA Meeting of Maternal and Child Care Committee Chairmen in Phoenix, Arizona, April 29-30.

New Jersey Society for the Prevention of Blindness . . . Approved the appointment of Samuel Pole, M.D., to serve as MSNJ's representative on the board of directors of the New Jersey Society for the Prevention of Blindness.

Medical Society of New Jersey Student Association . . . Approved the following recommendation from the Medical Society of New Jersey Student Association:

That MSNJ authorize financial assistance for two students, one from the New Jersey Medical School and one from Rutgers Medical School, in the amount of $175 each (total $350), to attend MSNJ's Annual Meeting, May 6-9, in Atlantic City.

Council on Legislation . . . Approved the following recommendations from the Council on Legislation:

1. **Medical Malpractice Reinsurance Association**

A-942—To authorize the Commissioner of Insurance to order the Medical Malpractice Reinsurance Association to write medical malpractice liability insurance on a direct basis; to give the board of directors authority to determine limits of coverage for various categories and subcategories of insureds and

other amendments to the Medical Malpractice Liability Insurance Act.

The Executive Director advised that amendments have been prepared to make it clear that any surcharges under the state reinsurance association will be levied only against policies issued through the Reinsurance Association.

Recommendation: That the Board of Trustees endorse the introduction of the amendments to A-942.

2. **Current State Legislation**

Recommendation: That the Board of Trustees approve the positions indicated as follows:

S-420 – Cost Containment – Creates a health care cost containment commission – nine members. (One member to be of "the medical profession.") **NO ACTION**

A-443 – Medicaid Abortion Services – Permits Medicaid payments for abortion services. **APPROVED**

S-14 – Russo, et al – Damages for Wrongful Death of Minors – This bill would allow damages related to factors other than pecuniary injuries in the wrongful death of minors with said damages to be limited to $100,000. (Current case law does not recognize such a compensable event unless the estate of the minor proved actual lost wages or income producing activity.) If enacted, this bill could have the effect of escalating personal injury liability rates. **DISAPPROVED,** because only damages established by proof should be subject to award.

S-33 – Russo – Determination of Death Same as **S-1039** (1976) **APPROVED**

S-43 – Russo – Terminal Illness Assistance – Amends existing statutes relative to the Juvenile Terminal Illness Program to include all persons regardless of age. **NO ACTION**

S-45 – Russo – Health Care Facilities – Requires hospital governing boards to regulate smoking within hospitals. Visitors and staff shall smoke only in designated areas and not in the presence of patients. Patients shall be assigned rooms according to smoking preferences. **APPROVED**

S-46 – Russo – Physician Advertising – Permits physicians to place their names on signs or directory posts within reasonable proximity to the building wherein their office is located. **APPROVED**

S-49 – Russo – Motor Vehicle Implied Consent – Would extend the implied consent law to include the taking of blood and urine samples for alcohol or drug determinations. Refusal to permit the sampling would carry the same penalty as refusal of the breath analysis test. **APPROVED**

S-58 – Russo – Good Samaritan Act – Extends the immunities of the above act to cover physicians responding in good faith to emergency calls in all locations including hospitals. **CONDITIONAL APPROVAL,** pending the amendment of "no compensation." This amendment to be forwarded to the sponsor.

S-127 – McDonough – Health Care Malpractice Liability Act – Same as **A-2375** of last year (1976-1977), the Maguire Bill. This bill was drafted by the Monmouth-Ocean County Medical Society project. It contains a number of very favorable concepts which thus far have proved to be unacceptable to the legislature, i.e., an absolute two-year occurrence on the Statute of Limitations; a limitation on pain and suffering compensation which is recoverable only when caused by a willful or grossly negligent act; a limitation on punitive damages of $100,000.

Other areas of difficulty are that:

(1) All providers of health care must carry professional liability insurance (limits not specified).

(2) Only when insurance covering liability is reasonably available as determined by the Commissioner shall a provider be liable for malpractice. (No court, legislature, or regulator would allow this clause to be operative.) **ACTION DEFERRED,** pending introduction of administration bills.

S-189 – Orechio, et al – Medical Examination of School Pupils – Permits school officials to direct a student to be examined by any available physician if the student's private physician is not available in order to determine whether or not he/she is under the influence of a controlled dangerous substance. **APPROVED**

S-191 – Orechio, et al – Testing of Police Candidates – Mandates that police candidates successfully undergo interview or test by a licensed practicing psychologist or psychiatrist prior to appointment. **CONDITIONAL APPROVAL,** provided the language is amended to assure all tests are completed by or under the supervision of a psychiatrist.

S-198 – Orechio, et al – Drug Abuse Advisory Council Act – 1978 – Would establish a New Jersey Drug Abuse Advisory Council in the Department of Health. Consists of 17 members – 8 ex-officio, 9 citizens – appointed by the Governor. Purpose: to comply with federal grant requirements. **NO ACTION**

S-199 – Orechio, et al – Child Abuse – Deletes the word "willful" from the statutory definition of abandonment. **NO ACTION** (correspondence to be forwarded to sponsor requesting that this bill be defined more clearly)

S-206 – Orechio, et al – School Buses – Requires school transport vehicles to be equipped with seat belts and protective padding. **APPROVED**

S-214 – Orechio, Scardino – Department of Mental Health – Creates a Department of Mental Health and Disabilities to be responsible for all services for the mentally ill, the retarded and the developmental disabled. There is no provision for medical or psychiatric leadership. **DISAPPROVED,** because this bill is unnecessary – its intent can be accomplished within existing structures.

S-215 – Scardino, et al – Child Abuse – Permits information received and stored in the Central Registry of the Division of Youth and Family Services to be released to social case workers, probation officers, law enforcement agencies, and others that the DYFS determines have a professional interest in the control of child abuse. **APPROVED**

S-217 – Scardino, et al – Insurance Coverage of Outpatient Mental Health Services – This bill requires HSP-MSP and commercial health insurers to make available riders for coverage of outpatient mental health services. **APPROVED**

S-218 – Scardino, et al – Insurance Coverage of Outpatient Mental Health Services – Same as **S-217. APPROVED**

S-219 – Scardino, et al – Insurance Coverage of Outpatient Mental Health Services – Same as **S-217. APPROVED**

S-220 – Scardino, et al – State Medical Examiner Act – Amends existing statutes to include as a medical examiner case the "deaths of children under 3 years of age where the suspected cause is sudden infant death syndrome." **CONDITIONAL APPROVAL,** The italicized language on lines 32-35 (of the bill) should be removed because it conflicts with the concept of the cases being within the jurisdiction of the medical examiner. Beyond that, an autopsy is necessary to establish that SID was the cause of death. The medical examiner and not the parents, therefore, must decide whether or not the autopsy can be waived.

S-221 – Scardino, et al – Personnel of Psychiatric Hospitals – Requires the Commissioner of Human Resources to establish a personnel screening program for all employees in psychiatric facilities that have direct contact with patients. **APPROVED**

S-222 – Scardino, et al – Long Term Health Care Facilities – Establishes a citation system for prompt assessment of sanctions in case of violations of existing laws, rules, and regulations relating to patient care.

Class A violations are those presenting imminent danger to patients and a fine of $2,000-$10,000 for each infraction that must be imposed.

Class B violations are those having a direct relationship to the health and safety of patients other than Class A violations. A $500-$2,500 fine is to be imposed but may be suspended if the violation is abated promptly.

Jurisdiction rests with the State Department of Health, Division of Health Facilities. **NO ACTION**

S-224 – Scardino, et al – Developmental Disabilities – "Mental illness" means a mental, emotional, or behavioral affliction which is of such kind and degree as to require specialized care but does not include developmental disability.

"Developmental disability" means a disability originating before an individual attains 18 years of age which is of indefinite duration and produces a substantial handicap attributable to mental retardation, cerebral palsy, epilepsy, autism, or other conditions as determined by the Commissioner.

The "Commissioner" shall be appointed

by the Governor with the advice and consent of the Senate and shall be qualified "by experience and training to perform the duties of his office."

Each division will be under the supervision of a Deputy Commissioner appointed by the Commissioner. Each Deputy Commissioner shall be appointed by "training and experience to perform the duties of his office."

All functions, powers and duties of the Department of Human Services relating to mental health, mental retardation, and developmental disabilities are transferred to the Department of Mental Health and Disabilities. **DISAPPROVED,** because it removes community involvement from the operation of the psychiatric hospitals and carries no provision to assure that adequate medical and psychiatric expertise will be utilized in the structure and management of the proposed new Department.

S-225 – Scardino, et al – Community Mental Health Programs – Amends existing statutes by emphasizing the State's intent to encourage the development of community mental health programs. **NO ACTION**

S-230 – Scardino, et al – Department of Public Advocate – Restructures the Division of Mental Health Advocacy within the Department to create a Division of Mental Health Legal Counseling and Assistance which shall be staffed by multi-disciplined personnel.

Jurisdiction is all encompassing and relates to counseling, advising, and representing patients on all admissions, confinements, or retainments in mental health facilities, transfers, treatment, etc. The Division will also have the right to inspect and visit at any time any center, clinic, hospital or facility for patients who are mentally disordered. **DISAPPROVED,** because it imposes an unmanageable entanglement on the voluntary admission of psychiatric patients and invades the privacy and confidentiality of patients and families who voluntarily have sought treatment. Ultimately, it will discourage patients who desperately need help from seeking assistance because of the stigma attached to becoming registered with a public agency for voluntarily seeking psychiatric care.

S-241 – Scardino – Abortions – Requires the attendance of a second physician at all abortions after the 20th week of gestation in case the child is born alive. **DISAPPROVED,** because the bill is inconsistent since an abortion is performed to destroy the fetus and not preserve it.

S-358 – Zane – Terminal Illness Assistance – Appropriates $500,000, and directs the Department of Health to establish a program for the care and treatment of those suffering from terminal illnesses. **NO ACTION**

S-359 – Zane – Chronic Disease Control and Treatment – Amends the existing chronic disease control law to permit the Department of Health to purchase or provide treatment or financial assistance. **NO ACTION**

S-372 – Zane – Eye Bank – Authorizes the Department of Health to provide $25,000 to the Eye Institute at the United Hospital in Newark. **APPROVED**

S-395 – Zane – Medicaid – Extends Medicaid coverage to the medical needy which is to be defined by regulations of the Department of Human Services. **APPROVED**

S-417 Hagedorn – Public Eating Places – Requires all public eating establishments to have at least one employee on duty at all times who is familiar with choking prevention techniques as described in a State Health Department brochure. **DISAPPROVED,** this procedure could prove to be injurious to the people because of the difficulty in training restaurant personnel.

S-419 – Hagedorn, et al – Equality Among Health Insurers – Would provide that all health insurers be governed by the same rules and regulations, i.e., Blue Cross vs. Commercial Carriers. **NO ACTION**

S-420 – Hagedorn, et al – Cost Containment – Creates a health care cost containment commission – nine members – (one member to be of "the medical profession"). The Commission shall hold public hearings and make recommendations and findings to the Governor and the legislature. **NO ACTION**

S-777 – Hirkala – Immunity for Peer Review – Same as **S-903** (1976-1977). Grants civil immunity for peer review activities, including those of professional societies. **ACTIVE SUPPORT**

A-270 – Maguire, Kozloski, Barry and other sponsors – An Act concerning health care malpractice liability and health care malpractice liability insurance. (Same as **S-127**) **ACTION DEFERRED** (pending introduction of administration bills)

A-360 – Weidel – Cigarette Tax – Imposes a 10c per pack tax on cigarette to finance cancer research. **NO ACTION**

A-369 – Doyle, Newman – Certificate of Need – Exempts nonprofit corporations that had land for hospital construction prior to May 1971 from the certificate of need legislation, provided the municipality wherein said land was located had made an appropriation for the hospital construction. **NO ACTION**

A-432 – Shapiro, Dowd – Controlled Dangerous Substances – Decriminalizes marihuana by removing criminal sanctions from the personal possession and use of one ounce or less of marihuana or six grams or less of hashish. **NO ACTION**

A-437 – Shapiro – Charitable Institutions – Persons serving without compensation on the boards of charitable institutions would be immune from liability for acts or omissions arising from the discharge of their duties. **NO ACTION**

A-443 – Shapiro – Medicaid Abortion Services – Permits Medicaid payments for abortion services. **APPROVED**

A-463 – Jackman, Gallo – Division of Consumer Health Services in the State Department of Health – This bill legislates divisional status to a branch of the Health Department currently functioning under executive prerogative. **NO ACTION**

A-481 – Froude – Death With Dignity Act – Would permit adults to direct that in the event of a terminal illness no maintenance medical treatment is to be used to prolong life. **APPROVED**

A-482 – Froude – Restrictive Covenants in Medical Practices – Would make restrictive covenants in medical practices null and void and otherwise unenforceable. **APPROVED**

A-540 – Bassano, et al – Determination of Rh Disease in the Newborn – Requires every licensed attending physician to secure a Rh factor test for every pregnant female prior to delivery or abortion, or within 24 hours after delivery or abortion. (No penalty is provided for failure to observe the requirements of this bill.) **NO ACTION** (no enforcement mechanism is provided. This bill is unnecessary since its intent is already well established medical procedure in New Jersey.)

A-550 – Matthews – Group Health Insurance – Provides insurance coverage for the services of licensed marriage counselors when the policy in question would recognize the service if performed by another. **NOTED AND FILED**

Medical Aspects of School Sports . . . Approved the following recommendation, in response to a suggestion from Earl F. Koerner, M.D., chairman of the Amateur Hockey Association of the United States Safety and Protective Equipment Committee, who appeared before the Board:

That a working advisory committee be formed *by the Medical Society of New Jersey* composed of representatives from MSNJ as well as other groups such as: the Coaches Association, Trainers Association, and consumer groups, to act as a catalyst, making itself available to identify problems and answer questions relating to the medical aspects of school sports. (Italics indicate Board amendment.)

. . . Suggested that a member of the College of Medicine and Dentistry be included in the membership of this advisory committee.

Eye Health Screening Program . . . Approved a recommendation from the Council on Public Health that the Eye Health Screening Program for the year 1978 be conducted during the week of September 24.

Diagnostic Related Groups . . . Received a report from Chairman of the Board Todd concerning the Department of Health Commissioner's Physicians' Advisory Committee on the development of quality screens for the Prospective Hospital Reimbursement

Program using Diagnostic Related Groups. Dr. Todd noted that the Physicians' Advisory Committee and MSNJ have every assurance that the DRG Program will not be mandated until pilot projects are reviewed, with all parties given ample opportunity for study and comment. In accordance with the current attitude of openness and cooperation evidenced by the Department of Health, MSNJ will continue its intimate involvement in this project.

Public Relations . . . Noted that results of a recent informational survey indicated a good public response to the TV announcements prepared by MSNJ's public relations representative.

Health Planning and Cost Containment Meeting . . . Received a report from Dr. Frank Y. Watson on a meeting held in Washington on February 22 to apprise representative keymen of the AMA's position on certain cost containment and health planning legislation.

State Board of Medical Examiners . . . Received a report from Howard D. Slobodien, M.D., MSNJ's representative at the March meeting of the State Board of Medical Examiners.

. . . Agreed that a capsule report of the monthly meetings of the State Board of Medical Examiners should be supplied by the designated trustee in attendance.

. . . Noted that the State Board of Medical Examiners wishes to develop a working relationship with the Medical Society of New Jersey's Committee on Impaired Physicians.

. . . Noted that a list of practicing physicians willing to act as consultants to the State Board in selective cases has been compiled by county and specialty societies, in accordance with a previous request from the State Board of Medical Examiners.

. . . Directed that the practice of notifying the State Board of Medical Examiners of names of physicians willing to serve as consultants be continued, and that the State Board of Medical Examiners and the Deputy Attorney General be advised that this procedure is being followed by MSNJ.

. . . Noted that the schedule of Trustee assignments for attendance at monthly meetings of the State Board of Medical Examiners will be made in advance for an entire year.

British National Health Service Seminar . . . Authorized a member of the Executive Committee (Charles S. Krueger, M.D.) to attend (with expenses paid) a week-long seminar on the British National Health Service which will be held in London, May 12-17. The program is held in cooperation with the AMA and Economic Models, Limited, a British firm, and arranged so that top British figures in medicine, government, media, academia, and hospital administration provide historical and current insights into current issues and problems.

Nominating Committee Report . . . Received a memorandum from Speaker of the House of Delegates, Henry J. Mineur, M.D., calling attention to two defects in the 1978 Nominating Committee report:

a. Ineligible Candidates

In 1972, the House of Delegates adopted a resolution which declared that "no member shall serve more than three successive two-year terms as an AMA Delegate." In 1973, the House of Delegates adopted a Bylaw which stated that no member "shall serve more than three two-year terms as an AMA Delegate." Likewise, no member shall serve more than three two-year terms as an Alternate Delegate.

Both Doctor Hughes and Doctor Satulsky began two-year terms in January of 1973 and have continued to serve successive two-year terms which began in January of 1975 and January of 1977. They are, therefore, not eligible to begin serving a term which would commence in January 1979.

The Nominating Committee chose to consider the Bylaw (adopted in 1973) as all controlling and mutually exclusive vis a vis the 1972 resolution. Proper interpretation is that the Bylaw was complementary and expanded the scope of the resolution and in no way terminated its operative effect.

. . . Voted to support the opinion of the Speaker of the House and declare Dr. Frank Hughes and Dr. Emanuel Satulsky ineligible for reelection to the position of AMA Delegate.

. . . Voted to call a special meeting of the Nominating Committee for reconsideration of the positions left vacant.

b. Procedure

The Medical Society of New Jersey Bylaws require the Nominating Committee to meet in conformity with *Sturgis Standard Code of Parliamentary Procedure*. That Code provides that should Nominating Delegates become candidates for elective office, they should "resign from the Committee immediately."

At least six of the candidates on the Nominating Committee ballot served on the Nominating Committee. The minutes reveal that the Committee voted to ignore *Sturgis* in this regard. No Committee has the authority to suspend the Bylaws and their requirements.

. . . Voted retroactively to suspend the rules calling for the resignation of the Nominating Delegate.

. . . Postponed until a later meeting of the Board discussion of the need for creating a position of parliamentarian between meetings of the House of Delegates.

What's new at Bio-Science Philadelphia?

Always the latest specialized diagnostic tests.

Chemistry
Ferritin
Lipoprotein Cholesterol
Pyridoxal Phosphate
Riboflavin
Tryptophan

Endocrinology
Androstenedione
Calcitonin
C-Peptide
Estriol in Serum
Placental Estriol (Urine)
Pregnanetriol in Urine
Prolactin
17-OH Progesterone in Serum
Free Cortisol in Urine-RIA
17-Hydroxycorticosteroids in Urine

Immunochemistry
Anti-Extractable Nuclear Antigen
Fungus Ab Group
Intrinsic Factor Antibodies
Anti-tissue Antibodies
Progesterone Receptor Assay



Toxicology
Alkaloids and other bases
Anti-convulsants
Hypnotics and Tranquilizers
Free Erythrocyte Protoporphyrins
Cadmium in Blood
Hexachlorobenzene/ Hexachlorobutadiene
Ethylene Glycol

Screening Procedures
Routine Health Group
Chemistry Group
Executive Health Group
Coronary Risk Group

Therapeutic Monitoring
Darvon®
Succinimides
Theophylline
Gentamicin
Tobramycin
N-acetyl procainamide

Bio-Science

Bio-Science Laboratories

Philadelphia Branch
116 S. 18th Street
Philadelphia, PA 19103
(215) 561-6900

Report from the Foundation

Daniel J. O'Regan, M.D.
Medical Director

This article was written back in March—on St. Patrick's Day, to be exact. Yesterday's snow is melting, and Spring seems just around the corner. There is one sad note—the presence of a "For Sale" sign on the lawn at 315 West State Street. There are probably some doctors in New Jersey who never have visited the elegant old building which has been MSNJ's home for over thirty years. Once a private home with access to the Delaware, its fine wood paneling speaks of a past age.

The passage of time and accelerating events have doomed this gracious building as a meeting place and nerve center of Medical Society business. The rooms are filled with desks and typewriters; a giant copy machine fills the hall, and the parking lot is often so filled that the garage at The Inn must be used.

What all this really means is that the demands and pressures exerted on the practice of medicine call for more space, more staff, and more room for the busy committees. The pace is quickening, and response time to various influences is becoming shorter. What were once luxuries of time and space have been made inadequate.

The Foundation staff has been privileged to have occupied its spaces at 315 West State. The very presence of a group such as ours is another indication of the needs of the times. Our direction will remain as stated in our Articles of Incorporation. All of the projected purposes are even more valid now than in 1973.

We will miss this building and its carriage house, but we look forward to a close affiliation with MSNJ when the new quarters become available.

CMDNJ Notes*

Stanley S. Bergen, Jr., M.D.
President

Two hundred forty-eight doctoral degrees will be presented by CMDNJ at its annual commencement exercises beginning at 10 a.m. on June 2, at the Garden State Arts Center, Holmdel.

One hundred eighty new physicians will receive their M.D.'s—126 from the CMDNJ-New Jersey Medical School, Newark, and 54 from the CMDNJ-Rutgers Medical School, Piscataway. The D.M.D. degree will be awarded to 57 graduates of the CMDNJ-New Jersey Dental School, and 11 Ph.D. degrees to students of the CMDNJ-Graduate School of Biomedical Sciences.

CMDNJ continues to be a front-runner among medical and dental schools with regard to minority and women graduates. This year, the ratio of better than 20 per cent in each category is one of the nation's highest. As in past years, approximately 95 per cent of the graduates are residents of New Jersey.

In addition to the degree candidates, the commencement exercises will again include students of the CMDNJ-School of Allied Health Professions, Newark. Some 75 allied health students will receive certificates marking completion of training programs in operating room technology, dental assisting, medical technology, dietetics, physician assisting, and emergency medical technology.

Following the program a luncheon sponsored by the Foundation of CMDNJ will honor faculty members of CMDNJ's schools for "excellence in teaching." Two faculty members from each of CMDNJ's schools will be awarded plaques and grants to be used for professional purposes. The honorees are selected by the students and faculty of their own school.

CMDNJ-Rutgers Medical School is offering a program aimed at helping foreign-born physicians and other professions bridge the communications gap. Developed last year by the school's Speech Therapy Study Group, the program provides a personalized course of independent study in American-style English for the foreign-born. It is geared toward those who understand the language but, because of an accent or speech habits derived from another tongue, have difficulty in speaking it.

Based on individual home study, the course does not require attendance at classes. It employs the use of two tape recorders, so that the student can compare his speech with an instructor's. For details about participating in the program, contact B.S. Lee, Speech Therapy Group, CMDNJ-Rutgers Medical School, Hoe's Lane, Piscataway—(201) 564-4429.

Also underway on the Piscataway campus is a unique program designed to evaluate the medical knowledge and clinical performance of physicians in postgraduate training in family practice. Involving both the clinical and psychosocial aspects of family practice training, the self-monitoring Quality Assurance Program has been made possible through a $450,340 grant to the School's Department of Family Medicine by the Robert Wood Johnson Foundation of Princeton.

The three-year, academic-based training program prepares participating physicians for delivering comprehensive and continuous family care. Although all postgraduate medical programs thoroughly test physicians before they can be certified in their specialities, the Quality Assurance Program goes to new lengths to evaluate the physician-residents, and the effectiveness of the residency programs. Through a battery of tests, including videotaped sessions of residents and faculty interviewing real and simulated patients, baseline data are collected covering each participant's medical knowledge and problem-solving skills. The tests, which are repeated annually, are followed up with feedback from a family practice physician, a psychologist, and a social worker. Physicians are counseled individually regarding their evaluations and areas of weakness, if any. Reassessment then follows.

An objective of the program is to develop a model for family practice training.

Physicians Seeking Location in New Jersey

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly to them.

ANESTHESIOLOGY—Jitendra G. Patel, M.D., 133-52 Avery Avenue, Flushing, New York 11355. M. P. Shah Medical College (India) 1972. Board eligible. Group, partnership, solo. Available July 1978.

CARDIOLOGY—Jeffrey M. Mitchel, M.D., 240 East Palisades Avenue, Apt. F-7, Englewood 07631. NYU 1974. Subspecialty, internal medicine. Board eligible. Group or partnership with special interest in invasive and non-invasive clinical cardiology practice. Available July 1978.

INTERNAL MEDICINE—Thomas A. Neef, M.D., 367 Hill-n-Dale Drive North, York, Pa. 17403. Georgetown 1975. Board eligible. Group, partnership, solo. Available July 1978.

Jung Hun Lee, M.D., 27800 Mills Avenue, Apt. 103, Euclid, Ohio 44132. Kyungpook (Korea) 1969. Subspecialty, cardiology. Board certified. Group, partnership, solo. Available July 1978.

Narendra C. Bhalodkar, M.D., 86-16 60th Avenue, Apt. 3-L, Elmhurst, New York 11373. Baroda (India) 1971. Subspe-

cialty, cardiology. Board certified. Group, partnership, solo, or hospital based. Available July 1978.

David T. Klein, M.D. 4750 Bedford Avenue, Brooklyn, New York 11235. Brussels 1975. Board eligible. Partnership or group. Available July 1978.

Richard D. Schubert, M.D. 21 Parkman Street, Brookline, Massachusetts 02146. Downstate (NYU) 1975. Subspecialty, rheumatology. Board certified. Group. Available July 1978.

Mohammad H. Al-Asha, M.D., 70 Branchbrook Drive, Belleville 07109. Damascus (Syria) 1972. Subspecialty, gastroenterology. Board certified. Group or partnership. Available July 1978.

Rustom F. Damania, M.D. 108 Oak Street, Ridgewood 07450. Poona (India). Subspecialty, pulmonary medicine. Board eligible. Group, partnership, solo, industrial. Available July 1978.

Ramesh R. Karia, M.D., 2431 Webb Avenue, Apt. 9-E, Bronx, New York 10468. L.T.M.M. (India) 1971. Subspecialty, hematology/oncology. Board certified. Group, partnership, solo. Available July 1978.

Mahesh R. Desai, M.D., 225 Vandalia Avenue, Apt. 19-G, Brooklyn, New York 11339. NHL Medical College (India). Subspecialty, gastroenterology. Board certified. Group, partnership, solo, hospital based. Available.

Ram Krishna Reddy, M.D., 280 Henderson Street, Apt. 16-0, Jersey City 07302. Gandhi (India) 1963. Subspecialty, gastroenterology. Solo, group, partnership. Available July 1978.

Khaleeq U. Arshed, M.D., 420 East 102nd Street, Apt. 13-G, New York, New York 10029. Nishtar (Pakistan). Board eligible. Solo, partnership. Available July 1978.

Mark A. Kaplan, M.D., 523 East 14th Street, New York, New York 10009. Chicago 1974. Board eligible. Group or partnership. Available July 1978.

John R. Keiper, M.D., 3900 Park Avenue, Apt. 1-B, Bridgeport, Connecticut 06604. University of Texas 1976. Board certified. Group, partnership. Available July 1979.

Y. E. Szoke, M.D., 800 Forest Avenue, Apt. 15-E, Westfield 07090. Board eligible. Family practice setting, group, partnership, solo, associate. Available July 1978.

NEUROLOGY—Richard F. Tonzola, M.D., 18 Park Road, Belmont, Massachusetts 02178. CMDNJ 1973. Board eligible. Group, partnership. Available July 1978.

Jan Jerry Golnick, M.D., 4 Park Avenue, Apt. 8-E, New York, New York 10016. Silesian (Poland) 1967. Board eligible. Group, partnership, hospital. Available July 1978.

OBSTETRICS/GYNECOLOGY—Javad J. Jamshidi, M.D., 5555 Wissahickon Avenue, Apt. 1012, Philadelphia, Pennsylvania 19144. Meshed (Iran) 1965. Board certified. Group, partnership, solo. Available July 1978.

Seetha Devi Sureddi, M.D., 318 East 15th Street, Apt. 8-F, New York, New York 10003. Guntur (India) 1968. Any type practice. Available July 1978.

Parimal S. Bhayani, M.D., 1275 Rock Avenue, Apt. KK-7, North Plainfield 07060. Bombay 1969. Board eligible. Group, partnership, solo. Available.

Dong Wook Shin, M.D., 850 Station Avenue, Cornwells Heights, Pennsylvania 19020. Korea University. Board eligible. Solo or partnership. Available July 1978.

Antonio Reyes, M.D., 59-10 154th Place, Flushing, New York 11355. National University, Colombia (South America) 1965. Board eligible. Group or partnership. Available July 1978.

PATHOLOGY—Anthony W. Hu, M.D., 770 Anderson Avenue, Apt. 9-M, Cliffside Park 07010. Chung-Shan (China) 1969. Special interest—blood bank. Board certified. Group, partnership, institution. Available July 1978.

Firozali K. Panjvani, M.D., 38 Oak Avenue, Apt. 34, Worcester, Massachusetts 01605. Makerere (Uganda). Any type practice. Available July 1978.

Neena Mirani, M.D., 141 Old Short Hills Road, Apt. 46, Bldg. 4, West Orange 07052. T.N. Medical College (India) 1971. Board eligible. Hospital. Available July 1978.

Raja Ranasinghe, M.D., 124 Lake Street, Englewood 07631. University of Ceylon (Sri Lanka) 1969. Board certified in anatomic and clinical pathology. Group, solo, industrial, or hospital. Available.

PEDIATRICS—Nihal S. Nagahawatte, M.D., 210-B Davey Street, Bloomfield 07003. Sri Lanka (Ceylon) 1969. Board eligible. Group, partnership, hospital, emergency room, associate. Available July 1978.

Kanai L. Das, M.D., 89-21 153rd Street, Jamaica, New York 11432. Trivandrum (India) 1963. Board eligible. Group, partnership, solo. Available.

Nirmala Panda, M.D., 501 Sixth Street, Apt. 8-E, Brooklyn, New York 11215. Christian Medical College (India) 1965. Board eligible. Group, partnership, hospital. Available July 1978.

P. N. Varma, M.D., 506 6th Street, Brooklyn, New York 11215. Rangaraya Medical College (India) 1969. Board eligible. Group or partnership. Available July 1978.

Sharda J. Doshi, M.D., 89-06 135th Street, Apt. 5-J, Jamaica, New York 11418. B. J. Medical College (India). Board eligible. Group, partnership. Available July 1978.

Kyung-Ro Kwak, M.D., 1440 Freeport Loop, Apt. 2-A, Brooklyn, New York 11239. Pusan (Korea) 1963. Board eligible. Any type practice. Available July 1978.

PSYCHIATRY—S. A. M. Kazmi, M.D., 600 Gresham Drive, Apt. 104, Norfolk, Virginia 23507. King Edward (Pakistan) 1974. Board eligible. Group, partnership, solo, or institutional. Available July 1978.

Kyung-Seok Han, M.D., 200 Carman Avenue, Apt. 9-G, East Meadow, New York 11554. Seoul (Korea) 1970. Board eligible. Mental health clinic or in-patient unit. Available July 1978.

PULMONARY DISEASES—Kyung Ook Yoon, M.D., 80-15 41st Avenue, Apt. 342, Elmhurst, New York 11373. Yonsei Medical School (Korea) 1971. Board eligible. Institution or partnership. Available July 1978.

SURGERY, GENERAL—Rao Sureddi, M.D., 318 East 15th Street, Apt. 8-F, New York, New York 10003. Andhra (India) 1965. Board eligible. Any type practice. Available July 1978.

Carlos A. Medina, M.D., 787 Chambord Circle. Marion, Ohio 43302. National University, Colombia (South America) 1971. Special interest in emergency medicine. Hospital contract, group, or solo. Available July 1978.

Samir N. Guergawi, M.D., 101 Fairway Boulevard, Riverview, New Brunswick, Canada E1B 1T4. Cairo 1949. Group, partnership, or solo. Available July 1978.

Shahid H. Hashmi, M.D., 5214 Lancelot Lane, N.W., Roanoke, Virginia 24019. King Edward (Pakistan). Board eligible. Solo, partnership. Available.

B. M. Shivashankar, M.D., 32 Deanna Drive, Apt. 77. South Somerville 08876. Mysore (India) 1969. Special interest in colon and rectal surgery. Board eligible. Group, partnership, solo. Available May 1978.

Ramesh P. Shah, M.D., 3305 Broeck Pointe Court, Louisville, Kentucky 40222. Seth G.S. (India). Board eligible. Any type practice. Available.

Francis P. Badamo, M.D., 1585 Beech Street, Wantagh, New York 11793. University of Pennsylvania 1970. Board certified. Group, partnership, multi-specialty clinic. Available July 1978.

Sid Anur, M.D., 1500 East 10th Street, Winfield, Kansas 67156. Karantak (India) 1965. Subspecialty, endoscopy. Board eligible. Group, partnership, solo, or institutional. Available.

SURGERY, ORTHOPEDIC—DeWitt C. Brown, III, M.D., 1344 Fairacres Road, Rydal, Pennsylvania 19046. George Washington University 1968. Board certified. Solo, partnership. Available.

Edwin J. Lowd, M.D., MOQ 3057, Camp Lejeune, North Carolina 28542. Meharry 1969. Board eligible. Partnership, group, or solo. Available August 1978.

UROLOGY—Steven H. Paletsky, M.D., 126-C Remington Avenue, Syracuse, New York 13210. South Carolina. Board eligible. Group, partnership, associate, solo. Available January 1979.

Bhuta Dharampal, M.D., 1935 Eastchester Road, Apt. 3-A, Bronx, New York 10461. M.G.M. Medical College (India) 1970. Board eligible. Group, partnership, solo. Available July 1978.

Saad S. Antoun, M.D., 1614 Union Turnpike, North Bergen 07047. Cairo 1964. Board eligible. Group, partnership, solo. Available July 1978.

Peter T. Nieh, M.D., 103 Locust Street, Burlington, Massachusetts 01803. Cornell 1973. Board eligible. Group or partnership. Available January 1979.

LETTERS TO THE JOURNAL

Criticism and Rebuttal

February 3, 1978

Dear Editor:

I am writing in reference to the article in the January issue of *The Journal* of the Medical Society of New Jersey, under the title "Transurethral Resection of the Bladder Neck in Neurogenic Bladder Secondary to Myelomeningocele," (75:52-53) 1978.

I feel that this article is deficient in several aspects which are most basic to the practice of medicine and urology in particular.

It is noteworthy in the history that no mention is made of whether this 19-year-old boy has erections, masturbates, has orgasms, has urethral sensation or whether he has any desire in the future of fathering children.

Under physical examination no mention is made of the presence of rectal sphincter tone or absence of the bulbocavernosus reflex or of sensation to pin prick over S2, 3, or 4.

No statement is made of the presence or absence of urinary infection either past or present.

It seems that these simple, basic urologic questions would be expected of a first year resident presenting his case at a conference and I see no reason why they should not be presented in our *Journal*.

It is also well to mention that in the discussion no mention was made that in the future no attempt should be made to do any such surgery without the presence of complete urodynamic investigation and by that I mean not simply cystometrogram, but also urethral pressure profile, sphincter electromyogram and uroflowmetric examination. These parameters in any report should be given, both pre and post-operatively. It is simply modern urology.

I think it should be noted here that the trade off for this operation in a 19-year-old boy is retrograde ejaculation and probably infertility as a result thereof. What I am trying to say—before any operation is done like this in the future there are more parameters to be considered than are mentioned in this article. An up-to-date terminology, I think, should always be used in our *Journal*. This was certainly not the case in this presentation.

(signed) Louis L. Keeler, M.D.

March 1, 1978

Dear Doctor Keeler:

This is in response to your letter dated February 3, 1978 to the Editor of *The Journal* of the Medical Society of New Jersey wherein my article "Transurethral Resection of the Bladder Neck in Neurogenic Bladder Secondary to Myelomeningocoele" appeared in January 1978 (pp 52-53).

I agree that this article may be deficient in several aspects, but the most basic consideration in the practice of medicine, urology or any other specialty, is to cure the patient and to reintegrate him into society.

Prior to surgery, this patient was alienated from society in that he was incontinent, requiring a Cunningham clamp. Following surgery, he was able to void and empty his bladder, he has good urinary control, normal erections and normal ejaculations. He is now gainfully employed, and is the father of a healthy child.

Under physical examination, it is listed that the patient had a myelomeningocoele repair scar, sacral anesthesia and patulous anus. The IVP disclosed a normal upper urinary tract and cystographic phase of IVP disclosed a markedly trabeculated bladder with diverticulae. A cystogram showed 200 cc. capacity and a voiding pressure of 60 mm. Hg. Endoscopy examination revealed a trabeculated bladder with rigid and elevated bladder neck with diverticulae in the prostatic urethra.

It should be mentioned that this patient had been admitted previously on the service of prominent urologists in the United States (New York, California, and Florida). The only treatment offered was supravesicular urinary diversion (ileal conduit) which the family refused.

Retrograde ejaculation is avoided when the internal sphincter is preserved carefully. As I stated, this patient has normal ejaculations and is the father of a child.

I would be glad to forward a picture of this patient with his wife and son upon request.

(signed) Jesus Navarro, M.D.

Responses to "Medicaid Madness"

February 28, 1978

Dear Editor:

The article titled "Medicaid Madness" from *The Journal* of the Medical Society of New Jersey (74:69-71) is very similar to my experience with this agency. I suspect the problem is with poorly motivated, misdirected non-professional employees, a bureaucratic problem not easily solved.

(signed) Richard Fadil, M.D.

March 3, 1978

Dear Dr. Krosnick:

Thank you for your letter of February 28, 1978, commending the impact of our commentary, "Medicaid Madness," which appeared in the January issue of *The Journal* pp. 69-71. As you mentioned, the article was reprinted in *The New York Times* and also appeared in the Toms River *Times-Observer*.

I must say that the response to the original article has been overwhelming. Letters, telephone calls, and cryptic notes have deluged our office, mainly coming from physicians in New Jersey. A reporter from one of the Paterson newspapers conducted an interview at our office.

Various hospital administrators, hospital trustees, physicians, and patients have informed me that they sent copies of the article to *Reader's Digest*, hospital administration journals, dental societies, *Medical Economics*, *Newsweek*, *Time*, *JAMA*, and so on.

The most interesting observation is that I did not receive one letter objecting to the article—all communications contained highly favorable comments.

The National Alcoholic Commission

complimented us on our humane treatment of the alcoholic patient described in the article. Some physicians, who have barely spoken to me during my twenty years of private practice, have taken the liberty to write or call thanking us for publicizing the plight of physicians in regard to their relationship with Medicaid.

The most treasured letter actually came from Paris, France. Dr. William Dock, now 81 years old, and former Professor of Pathology at Stanford and Cornell and former Professor of Medicine at the Downstate Medical School in Brooklyn had retired this year as Director of Cardiology at the Lutheran Medical Center in Brooklyn, New York, and moved to Paris, France. (Dr. Dock had always been my conception of the ideal internist.) After reading a copy of our recent publication he wrote the following from Paris (under date of March 3):

"Cheer up! There always will be plenty to do. But don't waste nursing care on solitary cirrhotics, for they have nothing to lose. On married ones, it's worth while to rescue them from their first episode of hepatic failure—with a good spouse and good care the remission may last for decades. But the man you worked so hard to save and for whom you wrestled with bureaucrats, would have gotten ¼ gr. M.S. and a long sleep at the Brigham in the 1920's, at Stanford or Bellevue in the 30's, and at the Veterans Hospital in the 60's. Read Ecclesiasticus (Sirach) for details. Best wishes, Bill Dock."

(signed) Murray Strober, M.D.

P.S. We have not heard from the Director of Medicaid as yet.

Our New Look

March 20, 1978

Dear Doctor Krosnick:

I wish to extend congratulations and appreciation to you and your staff upon the revision of the make-up, type face, and format of *The Journal*. As a former editor, I can appreciate the great effort involved in such a change from conception through planning to implementation. Our "new" *Journal* reflects great credit upon our Society.

(signed) James E. D. Gardam, M.D.

March 27, 1978

Dear Sir:

My compliments on the changes that have taken place in *The Journal*. The new layout and format make for a most readable and enjoyable publication. I am sure the changes were difficult to adjust to, but the overall results were excellent. My compliments to the entire editorial staff!

(signed) George J. Paul, M.D.

Life, Koop, Duff, and Meltz: Further Remarks

March 22, 1978

To the Editor:

As the individual who attended the Prayer Breakfast, 211th Annual Meeting, Medical Society of New Jersey, who requested C. Everett Koop, M.D., to submit his remarks to *The Journal* for publication (printed in January 1978 issue, pp. 62-67) and who delivered them to you, I am answering Dr. Meltz's intemperate polemic printed in the March issue (pp. 269-270).

In *The Journal* you carefully described this as a "Special Article," not a scientific presentation, and on page 62 noted that the remarks were delivered at the Annual Prayer Breakfast. Both the American Medical Association and the Medical Society of New Jersey have Religion and Medicine Committees which sponsor such meetings. Are they to meet in secret and never contact the membership? Where is scripture more appropriately quoted than at such a meeting?

At the risk of offending Dr. Koop and Dr. Meltz, I will note that both of them are secure and certain in the rightness of their separate causes. Indeed, some of the adjectives which Dr. Meltz applies to Dr. Koop's article could be used to describe Dr. Meltz's letter. But there are many citizens including many physicians—specifically myself—who are ambivalent about this controversy and who need all the help they can get. I found particularly distressing Dr. Koop's recitation of what happened in Germany between World War I and Hitler's rise to power—"276,000 people were destroyed this way in Germany before Hitler came to power." Dr. Koop does not equate abortion to genocide but does enumerate the easy steps from one to the other.

The ambivalence of many persons results from their abhorrence of abortion in general and their sincere sympathy for the unhappily pregnant female in particular. There is no easy choice for such a woman—I make the assumption that the choice of abortion is not easy—and when abortion is contemplated, obviously the choice of delivery is not easy either. In our present situation I am prepared to accept the decision for abortion for such a woman, even with tax-paid medical care. But I do not advocate it, nor am I happy with my decision. Obviously I disagree with Dr. Meltz.

Neither Dr. Meltz's advocacy of easy abortion nor Dr. Koop's proscription of abortion offer a solution acceptable to me for unwanted pregnancies. For the immediate present, in the current state of ignorance of both men and women, as well as of adolescents, I can accept abortion. But as a long-term solution, I cannot. Neither Dr. Koop nor Dr. Meltz discuss the alternative of adequate sex education prior to and during the procreative periods of life. It is not enough to treat the end result of ignorance. The end results should be and can be prevented by an early, prolonged and intensive education of each one's sexuality—including not only normal physiology and anatomy but also contraception, sterilization, and abortion. And, at the same time persuading our adolescent population that pregnancy in the teenager does not mean maturity.

I am sure you will receive other comments on Dr. Meltz's letter—and possibly also on Dr. Koop's article—since this is a controversial subject involving the activities (or lack of them) of physicians. I encourage *The Journal* editorial staff to follow Dr. Meltz's suggestion, "to take a serious look at its obligation, its purposes and its performance." After the staff does that, I am sure the staff will continue to produce the superior journal the Society now has.

In closing, my wife and I wish to invite *The Journal* editor and his wife and Dr. Meltz and his wife to be our guests at the 2nd Annual Prayer Breakfast, 212th Annual Meeting MSNJ, on Sunday, May 7, 1978 at 7:15 a.m. Perhaps another "Special Article" will come from it.

(signed) Samuel J. Lloyd, M.D.

March 22, 1978

Dear Sir:

I did not read the article "Sanctity of Life" (*J Med Soc NJ* 75:62-67, 1978) but have read the responses by Drs. Duff and Meltz in the March issue.

The problem with abortion, as with so many other moral questions, is that once the problem is incorporated into the body of law, moral judgments no longer apply. Doctors, as well as families, always have made decisions about life and death of patients or kin, and

continue to make these decisions about their pets as well.

With regard to abortion, the nation had two choices: We could agree that we were committing murder, i.e., we were murdering a fetus; or we could decide that the fetus was not alive and therefore there was no collective guilt. The Supreme Court chose the latter course.

In either case, this decision has robbed life of a certain sanctity, and we can expect to move on to the next legislative plateau, which, of course, will include euthanasia.

I think the real difficulty that I have with the abortion issue is that somehow in the process of legislating and legalizing abortions, the definition of life was altered. For this generation to assume the onus of changing the definition of life is to accept an awesome burden indeed.

Indeed society has terrible moral problems with which to grapple, and all of us perhaps would be well advised to refer to the *Bible* and other tomes in which great questions of life and death are examined.

The purpose of bringing questions like this into the public forum is to prepare the way for covering law. The law, however, is incapable of dealing with these questions, and I would suggest that questions of life and death in medicine have nothing to do with legality or illegality. Death can *not* be legislated. We are dealing with value judgments that only can be resolved by families and their physicians and their clergy after due deliberation. Committees of strangers can play no reasonable role, and for these problems the law is a stranger.

People usually are forced to wrestle with their own indiscretions privately. Law, however, forces an entire nation to share guilt, which is unfair to those to whom certain acts covered by law are a sin or anathema. This in a sense is what the problem is: we keep asking everybody to participate in everybody else's sin. It is death by committee.

(signed) Charles Harris, M.D.

March 23, 1978

Dear Sir:

I am writing to you with regard to the article "The Sanctity of Life" by Dr. C. Everett Koop which was published in your January issue, (*J Med Soc NJ* 75:62-67, 1978) and in which reference is made to an article which Dr. R.S. Duff and I co-authored in 1973.[1] From my knowledge of Dr. Koop, I was not surprised to see that he holds strong opinions; but I was surprised at the extent to which he allowed his emotion to overrule his judgment of what is acceptable comment. His article was based on a talk given to an Annual Prayer Breakfast, but in its untruths, distortions and distasteful innuendo, some sections would have been more suitable in a diatribe to a gathering of zealots. My first reaction was to question why some editorial discretion was not exercised prior to publication, but on reflection I can see that this was consistent with fair editorial policy as your readers had the opportunity to read another article by Dr. Duff published in the same issue. The contrast is obvious. Unreasonable, objectionable, and blatantly erroneous statements such as Dr. Koop's should be seen for what they are. I hope that the members of the Medical Society of New Jersey will take the trouble to read our original article alongside that of Dr. Koop and judge for themselves.

He states "they starved to death 14 percent of the population of their newborn intensive care unit over a two-year period." I am sure his audience and readers must have found that unbelievable, and rightly so. Such gross misrepresentation suggests either that he did not read the article properly, or that he was deliberately distorting the facts to promote his own crusade. He calls us "the darlings of a segment of the medical profession, darlings of the liberal press" and says we "brag" about the way we have found "to settle the problem of adversity." I confess to being at a complete loss to know what he is talking about. We reported nothing new, we offered no easy solution to adversity, —rather the opposite. We asked that there be tolerance and latitude in decision-making. Above all, we asked that physicians consider the views of patients and their families. To seek refuge in a "comfortable morality" and apply the techniques of modern surgery and intensive care without regard to these issues is the easy way out for doctors. I think we would all agree that those who embark on crusades should take great care to examine their values and methods lest by their work and example they tyrannise others.

Dr. Koop has an international reputation as a paediatric surgeon. He has a perfect right to speak out against what he believes to be wrong, but it is surely unnecessary for him to indulge in offensive hyperbole to make an impact. Such tactics are bad enough from a tabloid journalist. They are inexcusable in a medical scientist, and in using them Dr. Koop diminishes only himself.

(signed) A. G. M. Campbell, M.B.
Professor of Pediatrics
University of Aberdeen (Scotland)

1. Duff RS and Campbell AGM: *Moral and ethical dilemmas in the special nursery. N Engl J Med* 289:890-894, 1973.

CME INFORMATION

Cancer Symposium

The Paterson General Hospital, in conjunction with the George T. Pack, M.D. Medical Foundation and the Passaic County Unit of the American Cancer Society, will present the George T. Pack, M.D. Memorial Cancer Symposium on the morning of Saturday, May 20, at the North Jersey Country Club in Wayne. Topics include: Impact of a Tumor Clinic upon a Community Hospital, Surgery of Head and Neck Cancer, Staging Laparotomies and Results in Hodgkin's Disease and Lymphoma, Malignant Melanoma, CT Scanning of Malignant Lesions, and Impact of Breast Reconstruction in Treatment of Breast Cancer. Fee is $15 which includes luncheon ($8 for nurses, interns, residents, and allied health services). Four credits will be awarded in Category I of the AMA Physician's Recognition Award. For information please communicate with John A. Ianacone, M.D., chairman of the program, 278 McKinley Place, Ridgewood 07450.

New Jersey Thoracic Society Annual Meeting

On June 7 at the New Jersey Medical School-CMDNJ, Newark, the New Jersey Thoracic Society will hold its sixth annual meeting. The general topic is "Recent Advances in Pulmonary Disease." Presentations will be made on hormonology of lung tumors and the present status of Legionnnaire's Disease. The session begins at 9:30 a.m.; luncheon is at noon. The afternoon session will consist of presentations of abstracts on topics in pulmonary disease. For additional information please communicate with the New Jersey Thoracic Society, 2441 Route 22 West, Union 07083.

Drug Abuse Seminar

On May 27 in the auditorium of Rutgers Medical School-CMDNJ, Piscataway campus, a seminar on drug abuse will be held. The program, which has been arranged by the New Jersey Drug Abuse Council in cooperation with the Division of Narcotic and Drug Abuse Control of the New Jersey State Department of Health, MSNJ, the Academy of Medicine, CMDNJ, and Hoffmann-La Roche, Inc., will convene at 8 a.m. There is no fee. Professionals from the West coast, including the Haight-Ashbury Free Medical Clinic, will speak on the subject. It is designed as a professional education program for physicians and other health professionals. Credit will be awarded in Category I of the AMA Physician's Recognition Award.

Symposium at Fair Oaks Hospital

"The Psychiatric Hospital Experience" is the title of an all-day symposium to be held at Fair Oaks Hospital, Summit on June 7. Presented will be models of hospital treatment focusing on how institutional structure, theoretical foundation, and multidisciplinary staffing patterns can combine to produce high-quality inpatient care. Through lectures and panel discussions the program will examine the necessary role of professional care in an organized environment. Six credits will be awarded in Category I of the AMA Physician's Recognition Award. For further information communicate with Ms. Katherine A. Durso-Hughes, Director of Community Relations, Fair Oaks Hospital, 19 Prospect Street, Summit 07901 (201-277-0143).

Gynecologic Endoscopy

The New Jersey Fertility Foundation is sponsoring two courses in Gynecologic Endoscopy, the first one June 8 and 9, and the second one in the fall, October 19 and 20. Thirteen credits will be awarded in Category I of the AMA Physician's Recognition Award and 20 Cognates will be awarded by the American College of Obstetrics and Gynecology. For information please communicate with George E. Laubach, M.D., 14 East Westfield Avenue, Roselle Park 07204 (201) 241-3010.

Graduate Courses in Radiology

The Department of Radiology of Duke University Medical Center will present two graduate courses in diagnostic radiology. The first will be held at Atlantic Beach, North Carolina from July 31 to August 5. Included will be sessions on ultrasound, CT scanning, and nuclear medicine. Thirty credit hours will be awarded in Category I of the AMA Physician's Recognition Award. Registration fee is $200; for those in training the fee is $100 if the application is accompanied by a letter from the department chairman. The second consortium will be a five-day course to be held at the Southampton Princess Hotel in Bermuda from October 23 to 27. Primary topics will be ultrasound and CT scanning. Thirty credit hours will be awarded in Category I of the AMA Physician's Recognition Award. Fee is $250; for those in training the cost is $125 if the application is accompanied by a letter from the department chairman. Further inquiries should be directed to the program director, Robert McLelland, M.D., Radiology-Box 3808, Duke University Medical Center, Durham, North Carolina 27710 (919) 684-4397 or 2711.

Semmelweis Seminar

The Fourth Memorial Ignatz Semmelweis Seminar will be held September 8 to 11 at the Playboy Club Hotel, Great Gorge, New Jersey. The general title for the program is "New Technics and Concepts in Maternal and Fetal Medicine." Some of the topics include Team Approach to Perinatal Care, Hormonal Control of the Reproductive Process, Advanced Antenatal Methodology, Maximum Risk Gestation, and Perinatal and Neonatal Technology. The last day is devoted to a workshop on Modern Perinatal Technology. For information please communicate with Dr. Leslie Iffy, Program Director, Department of Obstetrics and Gyne-

cology, New Jersey Medical School, CMDNJ, 65 Bergen Street, Newark 07107 (201-643-0407).

CME in Cytology

The annual scientific meeting of the American Society of Cytology will be held in Miami Beach, November 7 to 11. The program consists of symposia and workshops. Credit will be awarded in Category I of the AMA Physician's Recognition Award. For information please communicate with Warren R. Lang, M.D., Secretary, American Society of Cytology, Health Sciences Center, 130 South 9th Street, Suite 1006, Philadelphia, Pennsylvania 19107 (215-922-3880).

Otolaryngology Assembly

The Department of Otolaryngology of the Abraham Lincoln School of Medicine, University of Illinois, announces a week-long assembly in otolaryngology, September 17 through 22 at the Eye and Ear Infirmary of the University of Illinois Hospital, Chicago. Offered is a condensed basic and clinical program for practicing otolaryngologists. It is designed to bring to specialists current information in medical and surgical otorhinolaryngology. Inquiries should be directed to Emanuel M. Skolnik, M.D., Chairman of the Assembly, Department of Otolaryngology, Illinois Eye and Ear Infirmary, 1855 West Taylor, Chicago, Illinois 60612.

CME CALENDAR

This listing is compiled through the cooperation of the Committee on Medical Education of the Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s), indicated by italics—last line of each item.

May

15 Neuroscience Conferences
22 11:30 a.m.-12:30 p.m.—Bergen Pines County Hospital, Paramus
(Bergen Pines County Hospital and AMNJ)

15 Endotoxic/Hemorrhagic Shock
12 noon—Hospital Center at Orange
(AMNJ and AAFP)

16 Kidney Stones
12 noon—St. Mary's Hospital, Orange
(AMNJ and AAFP)

16 Peritoneal Dialysis Update
9 a.m.-12 noon—Holy Name Hospital, Teaneck
(Holy Name Hospital, N.J. Nephrology Society, and AMNJ)

16 E.R.C.P.
8:30-9:30 p.m.—Irvington General Hospital
(Irvington General Hospital and AMNJ)

17 Anaerobic Infections
1-3 p.m.—Christ Hospital, Jersey City
(Christ Hospital, AMNJ, and AAFP)

17 Special Problems in Neurology
7-10 p.m.—VA Hospital, East Orange
(VA Hospital and AMNJ)

17 Management of Hypertension
1:30-3 p.m.—Trenton Psychiatric Hospital
(Trenton Psychiatric Hospital and AMNJ)

17 Thyroid Imaging
7:30-9 p.m.—Middlesex General Hospital, New Brunswick
(American College of Nuclear Medicine and AMNJ)

17 The Pupil
7:15-9 p.m.—United Hospitals Medical Center, Newark
(Associated Eye Residencies of New Jersey and AMNJ)

17 Medical Aspects of Recreational Sports
9:30 a.m.-3:30 p.m.—New Jersey Medical School, Newark
(CMDNJ and AMNJ)

17 Psychiatry
30 1-3 p.m.—Ancora Psychiatric Hospital Hammonton
(Ancora Psychiatric Hospital and AMNJ)

17 Advances in Medicine
24 9:30-11 a.m.—Bergen Pines County Hospital, Paramus
(Bergen Pines County Hospital and AMNJ)

17 Cardiology Conferences
4-6 p.m.—Rutgers Medical School
(CMDNJ and AMNJ)

17 Contemporary Issues of Psychiatric Residency Training
1-2:30 p.m.—Community Health Center (CMDNJ), Newark
(CMDNJ and AMNJ)

17 Cardiac Grand Rounds
24 3-4:30 p.m.—New Jersey Medical
31 School, Newark
(American Heart Association, N.J. Affiliate, CMDNJ, and AMNJ)

17 Recent Advances in Internal Medicine
24 and Therapeutics
31 9-11 a.m.—Middlesex General Hospital New Brunswick
(Middlesex General Hospital and AMNJ)

18 Neurological Complications of Alcoholism and Treatment
11:45 a.m.—J.F. Kennedy Medical Center, Edison
(J.F. Kennedy Medical Center)

18 New Joints for Old
25 Impotence
3:30-4:30 p.m.—Burlington County Memorial Hospital, Mount Holly
(Burlington County Memorial Hospital, Hahnemann Medical College and Hospital and AAFP)

18 Advances in Pediatrics
6:15 p.m.—Bridgeton Hospital
(Bridgeton Hospital)

18 Antithrombotic Therapy
5-6:30 p.m.—Somerset Hospital Somerville
(Somerset Hospital and AMNJ)

18 Sixth Annual George Fried Memorial Lecture
9:30-11:30 a.m.—Newark Beth Israel Medical Center
(Newark Beth Israel Medical Center and AMNJ)

18 Pediatric Allergy Course
25 11 a.m.-12 noon—Children's Hospital of Newark
(Children's Hospital of Newark and AMNJ)

19 Chronic Renal Failure
12 noon—Freehold Area Hospital
(AMNJ and AAFP)

19 Immunization: Prospects for New Vaccines
8:15-10:30 a.m.—Overlook Hospital Summit
(Overlook Hospital and AMNJ)

19 Emerging Medicine
26 Bayshore Community Hospital
Holmdel
(Bayshore Hospital and AAFP)

20 Immunology in Obstetrics and Gynecology
9 a.m.-5 p.m.—Governor Morris Inn Morristown
(New Jersey Obstetrical and Gynecological Society and AMNJ)

20 The Abdomen: The CAT vs. The ECHO
Sheraton Inn, Newark Airport
(AMNJ)

20 George T. Pack, M.D. Memorial Cancer Symposium
9 a.m.-1 p.m.—North Jersey Country Club, Wayne
(Greater Paterson General Hospital and AMNJ)

20 Recent Advances in Medical Genetics
9 a.m.-2 p.m.—Children's Seashore House, Atlantic City
(CMDNJ and AMNJ)

23 Common Topical Agents in Dermatological Practice
8:30-10 p.m.—645 Cambridge Road Paramus
(Bergen Co. Chapter, American Medical Women's Association and AMNJ)

23 Cerebral Vascular Disease
8 p.m.—Warren Hospital, Phillipsburg
(AMNJ and AAFP)

23 Treatment of Connective Tissue Disease
8-9 a.m.—Paterson General Hospital
(Greater Paterson General Hospital and AMNJ)

23 **Cancer of the Gall Bladder**
8-10 p.m.—Englewood Men's Club
(*Englewood Surgical Society and AMNJ*)

24 **Cardiac Grand Rounds**
3-4:30 p.m.—New Jersey Medical School, Newark
(*American Heart Association (N.J. Affiliate), CMDNJ, and AMNJ*)

24 **Day Institute: Psychosomatic Problems**
9:40 a.m.-4 p.m.—Camden County Psychiatric Hospital, Lakeland
(*Camden County Psychiatric Hospital and AMNJ*)

24 **Musculoskeletal Disorders and Current Therapy**

31 **Cystic Fibrosis**
1-3 p.m.—Christ Hospital, Jersey City
(*Christ Hospital, AMNJ, and AAFP*)

24 **Radiology Continuing Education Lecture Series**
Southern Ocean County Hospital
(*Burlington County Memorial Hospital and AAFP*)

25 **Endocrinology and Diuretics in Hypertension and Edema**
11:45 a.m.—J.F. Kennedy Medical Center, Edison
(*Searle Laboratories and J.F. Kennedy Medical Center*)

26 **Role of Affect in Empathy**
8:30-10:30 p.m.—Hackensack Hospital
(*New Jersey Psychoanalytic Society and AMNJ*)

26 **Ophthalmologic Manifestations in Systemic Disease**
12:30 p.m.—Hamilton Hospital, Trenton
(*AMNJ and AAFP*)

27 **CME Program**
8-10 a.m.—Newcomb Hospital, Vineland
(*University of Pennsylvania School of Medicine and AAFP*)

27 **Integrated Medical and Non-Medical Approach to Treatment of Drug Abuse**
8 a.m.-1 p.m.—CMDNJ-Rutgers Medical School, Piscataway
(*New Jersey State Department of Health and AMNJ*)

31 **Depression in a Non-Psychiatric Population**
1-2:30 p.m.—VA Hospital, Lyons
(*VA Hospital and AMNJ*)

31 **Cardiac Arrhythmias**
3 p.m.—Ancora Psychiatric Hospital Hammonton
(*AMNJ and AAFP*)

June

1 **Infectious Disease Course**
8:30-9:30 a.m.—Somerset Hospital Somerville
(*Somerset Hospital and AAFP*)

1 **Current Radiation Therapy**
11 a.m.—Greystone Park Psychiatric Hospital
(*AMNJ and AAFP*)

1 **Cushing's Syndrome**

8 **Carcinoma of the Breast: Part I—Diagnosis**

15 **Carcinoma of the Breast: Part II—Treatment**
11:45 a.m.—J.F. Kennedy Medical Center, Edison
(*J.F. Kennedy Medical Center*)

2 **Lipid Metabolism**
8:30 a.m.—United Hospitals of Newark
(*AMNJ and AAFP*)

2 **Thrombotic Thrombocytopenic Purpura**
12 noon-1 p.m.—St. Mary's Hospital, Orange
(*St. Mary's Hospital and AMNJ*)

5 **Neuroscience Conferences**
12 11:30 a.m.-12:30 p.m.—Bergen Pines
19 County Hospital, Paramus
26 (*Bergen Pines County Hospital and AMNJ*)

5 **Thyroid Diseases**
8 p.m.—Community Memorial Hospital Toms River
(*AMNJ and AAFP*)

5 **Graft Materials in Vascular Surgery**

6 Playboy Club, Great Gorge, McAfee
(*Peripheral Vascular Section of Englewood Hospital and CMDNJ*)

5 **Poorly Controlled Anger in an Obsessive Compulsive Woman**
8-10 p.m.—location to be announced
(*Essex Psychiatric Seminar and AMNJ*)

6 **Rehabilitation of Spinal Cord Injury and Catastrophic Brain Injury**

13 **Nuclear Medicine in Chest Diseases**

27 **Pump Failure**
8-9 a.m.—Greater Paterson General Hospital
(*Greater Paterson General Hospital and AMNJ*)

6 **Esophageal Emergencies**
5-6 p.m.—Rutgers Medical School Piscataway
(*Rutgers Medical School and AMNJ*)

7 **The Psychiatric Hospital Experience: 1978**
8:30 a.m.-4 p.m.—Summit Surburban Hotel, Summit
(*Fair Oaks Hospital and AMNJ*)

7 **Advances in Medicine**
14 9:30-11 a.m.—Bergen Pines County Hospital, Paramus
(*Bergen Pines County Hospital and AMNJ*)

7 **Cardiology Conferences**
21 4-6 p.m.—Rutgers Medical School Piscataway
(*CMDNJ and AMNJ*)

7 **Urinary Tract Infection**

14 **Immunization Practices—An Update**
1-3 p.m.—Christ Hospital, Jersey City
(*Christ Hospital, AAFP, and AMNJ*)

7 **Psychiatry**
14 1-3 p.m.—Ancora Psychiatric Hospital Hammonton
(*Ancora Psychiatric Hospital and AMNJ*)

Gynecologic Endoscopy
8 8 a.m.-5 p.m.
9 7:45 a.m.-4:30 p.m.—Memorial General Hospital, Union
(*The New Jersey Fertility Foundation and AMNJ*)

10 **Differential Diagnosis—The Wheezing Patient**

24 **The Leukemias**
8-10 a.m.—Newcomb Hospital, Vineland
(*Newcomb Hospital and University of Pennsylvania Hospital*)

13 **Exhibitionism**
8-10 p.m.—65 Haddon Avenue Haddonfield
(*Delaware Valley Study Group in Forensic Psychiatry and AMNJ*)

14 **Current Biological Concepts in Psychiatry**
1-2:30 p.m.—Community Health Center (CMDNJ), Newark
(*CMDNJ and AMNJ*)

15 **Beta-Adrenergic Blocking Agent in Cardiovascular Disease**
5-6:30 p.m.—Somerset Hospital Somerville
(*Somerset Hospital and AMNJ*)

16 **Sports Medicine**
12 noon—Freehold Area Hospital
(*AMNJ and AAFP*)

16 **Neurological Diagnosis by Inspection**
8:15-10:30 a.m.—Overlook Hospital Summit
(*Overlook Hospital and AMNJ*)

20 **Northern Regional Chest Conferences**
7:30-9:30 p.m.—Beth Israel Hospital Newark
(*New Jersey Thoracic Society and AMNJ*)

20 **Acute and Chronic Leukemia**
12 noon—St. Mary's Hospital, Orange
(*AMNJ and AAFP*)

20 **Shock**
8:30 p.m.—Marriott Motor Inn Saddle Brook
(*Fair Lawn Memorial Hospital, AMNJ and AAFP*)

21 **Special Problems in Neurology**
7-10 p.m.—VA Hospital, East Orange
(*VA Hospital and AMNJ*)

21 **Controversial Aspects in Tuberculosis**
1-2 p.m.—VA Hospital, Lyons
(*VA Hospital and AMNJ*)

21 **Cardiac Complications in Patients with Mental Illness**
1:15-2:45 p.m.—Marlboro Psychiatric Hospital
(*Marlboro Psychiatric Hospital and AMNJ*)

22 **Pathophysiology of Edema—Intermittent Idiopathic Edema**
11:45 a.m.—J.F. Kennedy Medical Center, Edison
(*Searle Laboratories and J.F. Kennedy Medical Center*)

23 **New Concepts in Coronary Care**
11 a.m.-12:30 p.m.
(*Saddle Brook General Hospital and AMNJ*)

24 **Radiology Continuing Education Lecture Series**
Southern Ocean County Hospital Manahawkin
(*Burlington County Memorial Hospital and AAFP*)

27 **Current Radiation Therapy**
8 p.m.—Warren Hospital, Phillipsburg
(*AMNJ and AAFP*)

28 **Cardiac Grand Rounds**
3-4:30 p.m.—New Jersey Medical School, Newark
(*American Heart Association (N.J. Affiliate, CMDNJ), and AMNJ*)

29 **Complications of Continuous Ventilatory Support**
11:45 a.m.—J.F. Kennedy Medical Center, Edison
(*Pfizer Laboratories and J.F. Kennedy Medical Center*)

Lifesaving Partnership... Against Cancer Quackery

The anguish associated with cancer is compounded by the cancer quack. False hopes—harmful delays—devastating expenses—deceptive diagnoses—loss of life—these are hazards facing the cancer patient desperate enough to seek a cancer quack.

The problem: how to divert the patient from this tragic encounter.

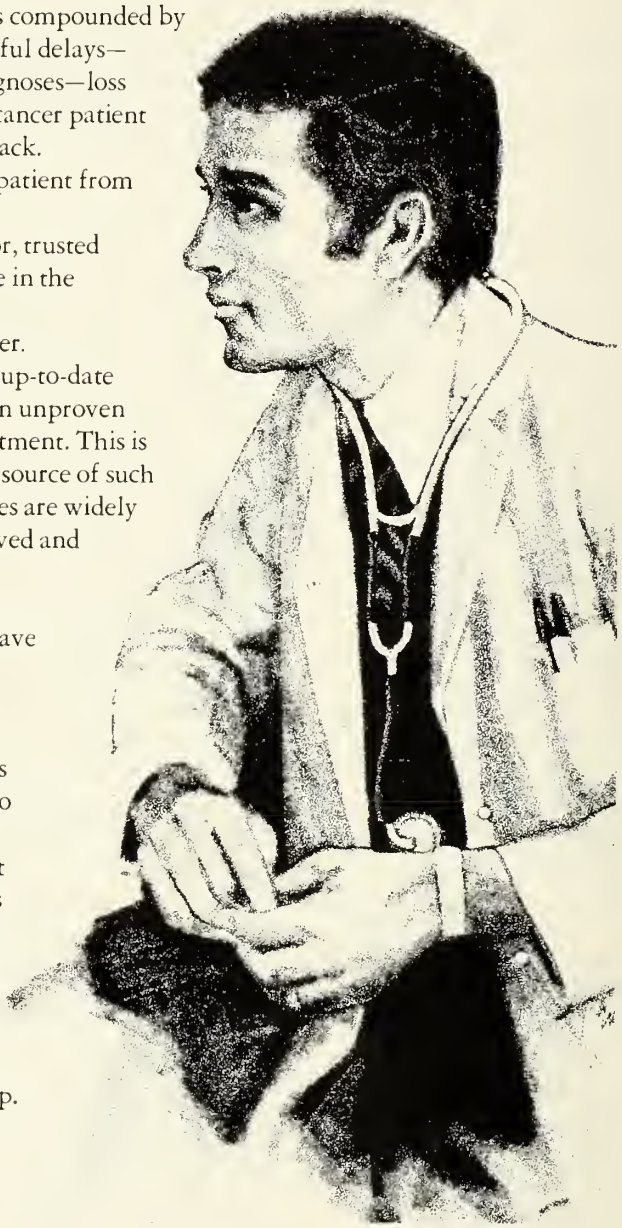
As medical guide, family counselor, trusted friend—you, *doctor,* play a major role in the fight against cancer quackery.

We are here to serve as your partner.

Our National Office maintains an up-to-date central clearinghouse for materials on unproven methods of cancer diagnosis and treatment. This is a unique operation and the principal source of such information in the country. Its services are widely used. Hundreds of inquiries are received and answered from all segments of the community, from coast to coast.

To trigger grass-roots action, we have formulated a model State Cancer Remedy Act designed to control the promotion and sale of unproven methods of cancer management. This has helped to inspire some 20 states to enact or consider legislation against cancer quackery—with active support from the medical community. Copies of the model act, as well as copies of laws in effect, are available through our National and Division offices.

In these actions against cancer quackery, as in all our efforts against cancer, ours is a lifesaving partnership.



American Cancer Society

OBITUARIES

Dr. Reuben B. Chesnick

We have just learned of the death on January 4 of Reuben B. Chesnick, M.D., a member of our Camden County component. Born in 1909 and graduated from Jefferson Medical College, class of 1936, Dr. Chesnick pursued a career in radiology, becoming board certified in that specialty. He was chief of the department of radiology at the Camden County Hospital in Lakeland and at the Sidney Hillman Center in Philadelphia. He was associate professor of radiology at the Medical College of Pennsylvania. Dr. Chesnick served in the medical department of the Army of the United States in World War II.

Dr. James F. Foley

One of Essex County's senior members, James F. Foley, M.D., of East Orange, died at St. Mary's Hospital, Orange, on January 13 after a long illness. A graduate of Georgetown School of Medicine in 1931, Dr. Foley returned to East Orange to establish a practice in general medicine, which he maintained until retiring in 1976. He had been affiliated in the department of medicine at St. Mary's Hospital, Orange, and St. Michael's Medical Center in Newark. He was a member of the Academy of Medicine of New Jersey and during World War II served in the Army of the United States. Dr. Foley was 73 years old at the time of his death.

Dr. Morton M. Klein

On February 21, Morton M. Klein, M.D., a member of our Middlesex County component, died after a short illness. Born in 1923 and graduated from Hahnemann Medical College class of 1950, Dr. Klein went on to take a residency in internal medicine at Queens Hospital in Jamaica, Long Island. He had been senior attending physician in the department of medicine at Perth Amboy General Hospital.

Dr. I. Edward Ornaf

I. Edward Ornaf, M.D., a well-known Camden County physician, died on March 1 at the Hospital of the Medical College of Pennsylvania, after a long illness. A graduate of Hahnemann Medical College class of 1933, Dr. Ornaf pursued a career in internal medicine and had been affiliated with West Jersey Hospital where he was formerly president of the medical staff, and at the Camden County Hospital at Lakeland where recently he had been director of medical affairs. Dr. Ornaf had been a member of the State Board of Medical Examiners since 1966 and at the time of his death was serving as secretary of that body. He was a past president of the Camden County Medical Society, who named him "Man of the Year" in 1961, and had been a member of the Board of Trustees of the Medical Society of New Jersey for many years. Dr. Ornaf was the first president of the Comprehensive Health Planning Agency of Southern New Jersey. In 1973 he was honored by the Polish-American Congress of Southern New Jersey for his outstanding contribution to the community. Dr. Ornaf was 69 years old at the time of his death.

Dr. Henry J. Schwarz, Sr.

Henry J. Schwarz, Sr., M.D., who, until retirement in 1975, practiced general medicine in Hudson County for 50 years, died on February 7 after a long illness. Born in 1902, Dr. Schwarz was graduated from Cincinnati Eclectic College in 1926 and returned to New Jersey to establish a practice in North Bergen. He had special interest in chest diseases and had taken graduate training at New York Medical College and St. Luke's Hospital in New York. He had been affiliated with North Hudson Hospital in Weehawken. Dr. Schwarz was a founding member of the American Academy of Family Physicians, and was a Fellow of the American Academy of Geriatrics. He was pre-deceased by a brother, Dr. B. T. Schwarz of Jersey City. A son, Henry J. Schwarz, Jr., M.D., practices internal medicine in North Bergen.

Dr. Dean A. Wry, Sr.

On January 30 Dean A. Wry. Sr., M.D., of Clifton, died at his home. Born in Fairfield, Vermont, Dr. Wry practiced in this Hudson County community since 1926. He was graduated from the University of Vermont School of Medicine, class of 1924, took graduate work at Cornell Medical College and New York Presbyterian Hospital, and pursued a career in general practice. He had been affiliated with St. Mary's Hospital in Passaic. Dr. Wry was 78 years old at the time of his death.

Erratum

The obituary on Frederick E. G. Valergakis, M.D., (JMSNJ 75:203) incorrectly listed him as board certified in urology. His practice had been exclusively in the field of neurology, in which he was board certified.

BOOK REVIEWS

The Heart Patient Recovers

Sydney H. Croog, Ph.D., and Sol Levine, Ph.D. New York, Human Sciences Press, 1977. Pp. 432. ($14.95)

This book about patients who have sustained their first heart attack was written by two sociologists who did an extensive research project starting with 345 white males and finally completed statistics on 293 subjects at the end of one year. The authors interviewed each patient three times starting with the acute infarction for which he was hospitalized in one of 26 hospitals in the Boston or Worchester area and finally at the one-year period.

The main thrust of this research involves the social and psychological aspects following a heart attack, as experienced by the patients, concerning that first critical year of adjustment to work, finances, economics, family relations, mental outlook, treatment compliance, personality changes, and many other variables about which so little is known. However, the findings cannot be simplistically generalized to all heart patients because this is a most highly selective group who were in perfect health before the first episode, age between 30 and 60 years, white, and male.

The book contains too much detailed information to summarize, but a few matters pertaining to doctors bear repeating. Patients who are "coping creatures" maintained a high contact with their doctors during the trying year with good communication (99 percent), and in turn were appraised most reliably by their physicians, far more accurately than any other predication factor (90 percent satisfactory).

Surprisingly, the book reports no significant difference between the personality of the heart patient and that of the "normal" population as has been suggested by some medical writers.

Cardiologists should read this book for it is the only thorough scientific study on heart patients in the critical year of adjustment. Social agencies can use this study to plan or evaluate further programs to help the patient after the doctor heals the wound. Possibly more important, this book may act as a springboard for scientists to probe and research the total patient-illness interaction that up until now has been as invisible as the back side of the moon.

Manuel J. Rowen, M.D.

Occupational Diseases: A Syllabus of Signs and Symptoms

E. R. Plunkett, M.D. Stamford, Conn., Barrett Book Co., 1977 Pp. 352. ($22.95).

The author has compiled a rather lengthy listing of some of the medical problems associated with many occupational conditions. He has divided the text into three parts:

One-third of the listing comprises signs and symptoms due to many materials, environments, plant conditions, garments, and a multitude of other factors facing employees.

Another third of the text lists the materials found in varying types of work and their potential medical conditions.

The final third is a glossary of the more common occupational terms and their corresponding medical definitions.

I suggest this text belongs in those medical facilities which deal with industry, per se, as well as in the poison control centers. There, a competent associate could look up suspected occupational-related situations, as an aid in the care and treatment of the employees or suspected poisoned patient. It does not strike me as belonging in the office of most private practitioners.

The quality of the publication does appear to be good and the price is within reason. Murray Kahn, M.D.

Current Medical Diagnosis and Treatment, 1978

Marcus A. Krupp, M.D. and Milton J. Chatton, M.D. Los Altos, California, Lange, 1978. Pp. 1098. ($17)

Published annually since 1962, this book, while always useful, has expanded into a densely-packed small textbook of general medicine. There are 33 chapters, such as eye, blood, gynecology and obstetrics, nutrition and six on infectious diseases. Most of the material deals with general internal medicine, but all fields of medical practice are covered. There is a useful appendix which includes immunization recommendations, laboratory values, nomograms, and similar data. The index is good and makes possible a quick boning-up on a disease or drug. The busy doctor can read a few paragraphs in several overlapping chapters and refresh the memory or review the latest thinking and suggestions. While reading the book, this reviewer found it useful every day. There are few references but they are well-selected and current. Portability and price are enhanced by thin though opaque pages and paper covers. It is highly recommended. Norman Riegel, M.D.

A Woman's Choice

Samuel Barr, M.D., and Dan Abelow. New York, Rawson Associates, 1977. pp. 306. ($10.95)

The very difficult choice of whether to continue or to terminate a pregnancy is made by at least one million women every year in this country. The decision to have an abortion affects a number of others who are close to those women—husbands, lovers, parents, friends, relatives, children, physicians, counselors, and ministers. The Supreme Court decision of 1973 which legalized abortion is being challenged today, and there is the possibility of nullification. There are not any simple answers for this highly controversial issue which involves religious, medical, political, and social aspects. Whatever decision is made does not satisfy everyone.

"A Woman's Choice" presents the total picture of the abortion issue with excellent guidance to all concerned in making the decision to have an abortion. The book is well written, interesting, and makes you realize that a pregnant woman's final decision about

whether to keep her pregnancy must reflect her needs. She is the one who has to live with that decision, no matter what it is, for the rest of her life. The human aspects of abortion are presented clearly with examples of real-life situations.

The author very successfully makes the reader realize that this situation very well could happen to him or to her, or to someone he or she cares for, and understand the problem as a fact of life and not as an esoterical situation. I am quite sure this book will make the readers re-examine their attitudes toward abortion, and, if it doesn't change their minds, at least it should succeed in making them more tolerant and understanding toward the issue.

Marco A. Pelosi, M.D.

Blood Policy: Issues and Alternatives

Edited by D. B. Johnson. Washington, D.C., American Enterprise Institute for Public Policy Research, 1977. Pp. 212. (Paperback, $4.75; hardcover, $9.75)

This booklet contains a discussion by experts in the fields of economics, social policy, and government of blood policy in the nation as it concerns supply and distribution. The material comes from the proceedings of a June 1976 conference, sponsored by the Center for Health Policy Research of the American Enterprise Institute. A major purpose of the conference was to enable blood banks, doctors, lawyers, economists and government officials to exchange views on recent controversies arising within the blood market.

The material is divided into three parts. Part I explores the blood market from the viewpoint of medicine, law, and economics. Part II examines governmental roles in health from the perspective of the swine flu virus program and the recently proposed regulations for blood labeling and other blood-related activities. Part III focuses on current practices and suggested reforms in the blood market. Emphasis is placed on stated precautions that must be taken to reduce hepatitis incidence. Methods of collecting, processing, and distributing blood by institutions should be improved. The discussion of blood and altruism is quite pointed and raises many issues. Overlapping jurisdictions among government regulations affecting blood banks has brought about consideration for licensing not only individual blood establishments, but entire regional systems. This booklet is recommended to all intimately involved in the procurement and distribution of blood.

Jack R. Karel, M.D.

Notable Medical Books from the Lilly Library

Indiana University Lilly Library. Indianapolis, Indiana, Lilly Research Library, 1976. (Price not given)

The study of medical history may be approached in various ways. One of the most popular is through reading the lives of the most famous personalities—Hippocrates, Galen, Vesalius, Harvey. Such an approach is apt to prove misleading since it fails to pay respect to the many lesser men whose struggles, successes, and failures paved the way for the ultimate successes of these geniuses of medicine. The impressive volume now under consideration leads us by another route to a more balanced appreciation of many pivotal figures who through their writings helped create the structure of medicine as we know it today.

The task of selecting these classics of medicine was entrusted to Dr. William R. LeFanu, a distinguished medical historian and librarian. In a brief introduction he gives well-deserved praise to many members of our profession who, over the centuries, have been counted among the most distinguished bibliophiles. Each book selected is accompanied by an illustration of the original text and a description which explains lucidly but succinctly the importance of the item to medical progress. The one hundred and thirty entries include almost all the greatest books in medicine, although one notes the absence from the index of such celebrated names as Rhazes, Pasteur, Koch, and Lister. But this should not be construed as a criticism, because fine copies of many rarities are not always available, and this collection is still in the making. All teachers and scholars will be grateful to Lilly Director, S.O. Waife, M.D., Librarian William R. Cagle, and their collaborators for having conceived this project and carrying it to a most successful conclusion.

Morris H. Saffron, M.D.

THE JOURNAL of the Medical Society of NEW JERSEY

Rate Card effective January 1978

Rates

	1 time	3 times	6 times	12 times
1 page	280	270	260	240
½ page	160	150	140	130
¼ page	75	70	65	60
⅛ page	50	45	40	35

Classified: Available to member physicians only.

Closing Dates for Space:

a. Reservations: 1st of month preceding month of issue

b. Cancellations: 6th of month preceding month of issue

Agency Commission: 15%

Cash Discount: 2%, 10 days.

EXCELLENT OPPORTUNITY FOR DOCTOR

Present awner retiring after aver 30 years practice in Fomily ond Industrial Medicine. Located in fast growing area with little ar na competition. Fully equipped modern one-stary, 8 roam affice with central air conditioning, including X-ray raam ond equipment PLUS adjoining immaculate 2 story, 8 raom Calanial hame; basement, 2 cor, 2-story gorage. Situoted an aver 1/2 acre lot with 141 feet frontage in business oreo ZONED Professional and Office. 2 miles from N.J. Trpk. Exit 8A and oppraximately 7 miles from Princetan and New Brunswick Hospitals. STEP into an established proctice with reody made income sufficient to pay aff investment within 10 years. Owner will accept a naminal dawn poyment ond take back Mortgage at reasonable interest rote.

Exclusive Realtar: **DANIS REALTY, INC.**
(201) 297-2822 Ask far Mr. Monni

MEDICAL PRACTICES — ALL SPECIALTIES

APPRAISALS — SALE — TRANSFER — MANAGEMENT CONSULTANTS

Locational analysis and Feasibility Studies

Unique opportunities for Solo — Groups — Partnerships in *existing lucrative Medical Practices throughout U.S.*

Specialists in "Recruitments" of Medical and Paramedical Specialists for Hospitals, Pharmaceutical and Industrial positions all over U.S.

Call: (212) RX3-3597, 3630 or write:

DR. FREDERICK KATZ ASSOCIATES AGENCY, INC.
96-08 70th Avenue, Forest Hills, N.Y. 11375

HALL-BROOKE FOUNDATION

A NON-PROFIT ORGANIZATION DEDICATED TO COMMUNITY HEALTH CARE AND EDUCATION

HALL-BROOKE HOSPITAL
A JCAH accredited hospital for care and treatment of psychiatric disorders within a therapeutic community.

Elisobeth F. S. Salamon
Executive Director

HALL-BROOKE SCHOOL
A special educational facility for students who are in psychiatric treatment.

47 LONG LOTS ROAD
WESTPORT, CONNECTICUT 06880
Telephone: (203) 227-1251

GENERAL PRACTITIONERS

A retiring physician is needed in a Retirement Community located in Ocean County. Complete security, all recreational and cultural activities including golf are available. Physician can practice at his convenience, no hospital connections required.

For specific information please reply to

Box No. 42, c/o THE JOURNAL
315 West State Street
Trenton, N.J. 08618

WANTED
PRIMARY CARE (General Practitioners)

To locate in private practice throughout Ocean County (a rapidly growing County in New Jersey) in needed areas. Excellent place to live and practice. Four expanding hospitals and one Rehabilitation Hospital. Excellent recreation area. For information, please contact:

Ocean County Primary Care
Physician Recruitment Committee
Administration Building
Hooper Avenue
Toms River, N.J. 08753

PHYSICIAN WANTED

Licensed New Jersey Physician wanted for northern New Jersey industrial clinic. Mostly light trauma. Regular hours — no weekends. Excellent benefits.

Submit resume to Box No. 61, c/o THE JOURNAL.
315 West State Street
Trenton, N.J. 08618

NEW JERSEY — ANCORA

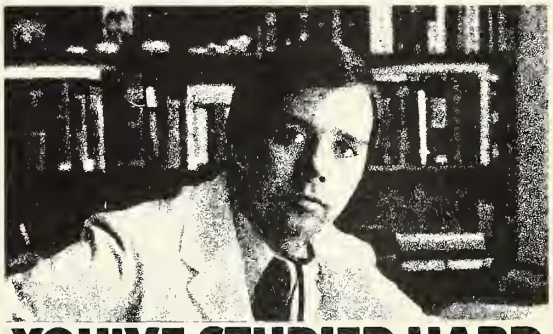
Immediate openings for Staff Psychiatrists and Primary Care Physicians in 1100 bed JCAH and AMA Accredited Psychiatric Hospital with 3 years approved Residency Training. Affiliated with Temple University Hospital, Department of Psychiatry. Located 40 minutes from Atlantic City and Philadelphia. Salary: $28,777 to $40,700 for 35 Hour Work Week. Private Practice after duty hours permitted. Liberal fringe benefits include Professional Liability, Blue Cross, Blue Shield, and Life Insurance.

Write Shao-Chi Yu, M.D., Medical Director, Ancora Psychiatric Hospital, Hammonton, New Jersey — 08037, or call Area 609-561-1700, Ext. 203.

RESIDENCY IN PHYSICAL MEDICINE AND REHABILITATION

Dynamic, young program with balanced academic and clinical emphasis under the supervision of 10 physiatrists. Three year program and integrated internship/residency with opportunity for research and pursuit of special interests both in medical school and private hospital settings. Stipends from $13,300 to $15,200 depending on qualifications. We will pay for visits in selected cases. Equal Opportunity/Affirmative Action Employer. Telephone or write for information to:

John F. Ditunno, Jr., M.D., Director
Department of Rehabilitation Medicine
Thomas Jefferson University Hospital
11th and Walnut Street
Philadelphia, Pa. 19107
Telephone: (215) 829-6573



YOU'VE STUDIED HARD TO BE A DOCTOR. BE A DOCTOR.

The U.S. Navy can offer you the kind of practice you studied so hard for. Devoting your time solely to the practice of medicine.

As a Navy physician, we'll give you a challenging and rewarding practice — a practice with a minimum of paperwork and no administrative overhead. It's a practice complete with excellent facilities and support personnel.

In addition, you'll find a Navy practice allows you time to spend with your family. Associate with other highly motivated physicians. Further your schooling. Even enjoy 30 days' paid vacation every year.

All this, plus a starting salary of $30,000 a year — more, depending on your experience.

If it all sounds like the practice you studied so hard for, call us for more information. Just contact:

HARRIET E. ZECH, Lt. Nurse Corps, U.S.N.
Gateway 1 Bldg., Newark, NJ 07102
Phones 201-645-2109, 201-645-2181

BE THE DOCTOR YOU WANT TO BE. IN THE NAVY.

IDEAL OFFICE LOCATION
TRENTON

1600 sq. ft. modern, fully carpeted, air-conditioned, parking, in clean Polish-American neighborhood in need of a general practitioner due to recent loss of 2 local physicians. Located 2 ½ blocks north of Helen Fuld Medical Center.

Information:

Lillian Simon
918 Brunswick Ave.
Trenton, N.J. 08618
or: (609) 883-2198

FOR SALE

DOCTOR'S OFFICE in private residence, located in Hightstown opposite Peddie School. 9 rooms of office area and 10 rooms in dwelling. Excellent potential. $105,000.

RANCH HOME with 42 x 28 store area. Residence has 8 rooms, 1 1/2 baths. Excellent condition. Good opportunity for professional offices, clinic, etc. $85,000.

LEONARD VAN HISE AGENCY
(609) 448-4250

MEDICAL BUILDING OFFICE SPACE

Union — Choice 830 sq. ft. suite in Modern Medical Arts Building. Ideal location, convenient to Memorial General as well as other area hospitals.

Generous on-site parking.

(201) 574-9402
after 6 p.m.

NEWLY RENOVATED PROFESSIONAL BUILDING

800 Square Feet available
Approximately 20 x 40 feet

Center of Business District

5-10 minutes from Greater Paterson General Hospital

call **(201) 423-3133** or **423-4379**

WE HAVE GROWN! HAVE YOU? DOCTORS NEEDED!

Ocean County Population

1960	1975	1980
108,000	275,000	325,000

N.J. Standard: 1 physician per 1,000 pop.
Ocean County Today: ¾ physician per 1,000 pop.
Ocean County Needs 70-80 Doctors NOW!

We have a 1,200 sq. ft. office available which features a reception area, general treatment area, two examining rooms, surgery room, doctors lounge, private office, and private bathroom. Ideally suited for general practitioner.



OCEAN COUNTY

5 Miles South of Toms River

NOW RENTING
NEW MEDICAL AND DENTAL ARTS BUILDING
GROUND LEVEL, 1400 sq. ft. (may subdivide)

General Dentist located in building
Excellent for Group or Solo practice

For more information
CALL (201) 693-6524

PROFESSIONAL BUILDING OFFICE SPACE

NEWTON, SUSSEX COUNTY — Professional building just remodeled. Victorian architecture, granite construction. Central heat, air conditioning, elevator, two restrooms each floor, private parking. Two blocks from center of town.

Call (201) 383-5525

CLASSIFIED ADVERTISEMENTS

AVAILABLE—Ambitious, boarded Family Practitioner available to assist busy resort General Practitioners this summer. Write Box No. 58, c/o THE JOURNAL.

AVAILABLE—M.D., New Jersey license, with experience in Industrial Medicine, Health Centers and Emergency room. Desires part or full-time position, preferably in Industrial Medicine. Write Box No. 65, c/o THE JOURNAL.

AVAILABLE—Specialty Pediatrics, board eligible by July 1978. Desires group or partnership. Graduate B.J. Medical College. Available July 1, 1978. Write Box No. 59, c/o THE JOURNAL.

CARIOLOGIST—Seeks association with cardiology group or hospital based practice. 34, certified ABIM and suspecialty boards cardiovascular disease. University trained in all non-invasive and invasive techniques. Available immediately. Martin E. Kraus, 9 Brookside Avenue, Fair Haven, New Jersey 07701. (201) 747-9230.

GENERAL SURGEON—University trained with Vascular and Endoscopy; Board eligible; 35, FMG, FLEX. Available immediately. CV upon request. Write Box No. 54, c/o THE JOURNAL.

PEDIATRICIAN—Seeks position in group practice, partnership or solo in Northern or Central New Jersey. Board certified, bi-lingual. Available August 1978. Write Box No. 45, c/o THE JOURNAL.

PEDIATRICIAN—FMG, FLEX, board eligible, university trained, U.S. citizen. Desires solo, partnership, group, house staff, clinic. Terminate Air Force, August 1978. Leo P. Pajarillo, M.D., 2503 A Atlas Drive, Rome, N.Y. 13440.

PEDIATRICIAN—Board eligible. Seeks partnership, group or solo. Available July 1978. Contact C. B. Rao, M.D., 1825 Parkside Drive (# I-2), Parkridge, Illinois 60068. (312) 297-1731.

PHYSIATRIST—Seeks full-time job, Physical Medicine and Rahabilitation. Board eligible. New Jersey license. Available immediately. Write Box No. 60, c/o THE JOURNAL.

NEEDED—Emergency Physician—excellent opportunity, Central New Jersey, university community. Academically oriented, professionally and financially rewarding. Six-man group. Call E. V. McGinley, M.D. (201) 277-0466.

NEEDED—Family Practitioner—Excellent environment for practice in growing northern Ocean County. Suite available in multi-specialty medical park. Call: G. Post (201) 528-6700.

NEEDED—Pediatrician—Board certified or eligible to join well established growing suburban practice in southern New Jersey. Twenty minutes from Philadelphia and one hour from shore resorts. Immediate opening. Write Box No. 63, c/o THE JOURNAL.

NEEDED—Pediatrician—Outstanding opportunity for high volume referral practice. Suite available in exclusive medical park in Brick Town. Four OB-GYN practices currently in complex. Call: G. Post (201) 528-6700.

NEEDED—Orthopedist—Excellent opportunity in expanding multi-specialty medical office park. X-ray facility in office park. Centrally located in Brick Township. Call: G. Post (201) 528-6700.

PRACTICE WANTED—Wishes to purchase busy Internal/General Practice of retiring physician in Newark or Trenton. Write Box No. 56, c/o THE JOURNAL.

GYN PRACTICE FOR SALE—Haddonfield, N.J. Busy, lucrative. Immediate take over. Details on request. Owner recently deceased. Call (609) 428-3737.

PSYCHIATRIC PRACTICE FOR SALE—Includes successful private and hospital practice with excellent reputation in suburban area of Philadelphia. Spacious clinic presently facilitates five staff members, secretarial and bookkeeping personnel and provides 8 consultation rooms, 2 waiting rooms, 2 large group meeting rooms, kitchen, 3 baths and parking for 30. Area 30 minutes from heart of Philadelphia and 1 1/2 hours from NYC. Practice may be purchased with or without building. Qualified applicants contact Box No. 62, c/o THE JOURNAL.

FOR SALE—Home/Office; Glen Ridge; Family practice 38 years. Split-level home and office built in 1955. Residential area. Excellent schools. Office: 8 rooms equipped and furnished. Home: 8 rooms. Central air-conditioning. Retiring. Will introduce patients. Price over $100,000.00 Contact Box No. 51, c/o THE JOURNAL.

FOR SALE—Kearny, N.J.; Medical office, six rooms furnished. Two apartments now rented. Excellent location. Hospitals nearby. Available October 1978. Write Box No. 66, c/o THE JOURNAL. After June 15 call (201) 449-6139.

OFFICE SPACE—Jackson, Ocean County, Jackson Township. Now renting. Individual buildings being remodeled for professional center. Currently, two Obstetricians, Pediatrician and an Internist occupy the space. Additional space available for rental or condominium. Call (201) 892-9499.

OFFICE SPACE—Modern building with x-ray, laboratory, five other practitioners. "Cheap" Less than going rents in area. Contact Box No. 36, c/o THE JOURNAL.

OFFICE SPACE—Metuchen; Medical office fully equipped. 5 rooms, waiting, consultation, 3 treatment, darkroom. Centrally located, 5 minutes to JFK Medical Center. Close to 4 other hospitals serving residential and industrial area. Call (201) 549-2172, evenings.

OFFICE SPACE—Ocean County; Small space with some x-ray equipment for part-time office, which could lead to full time practice. Wrtie Box No. 50, c/o THE JOURNAL.

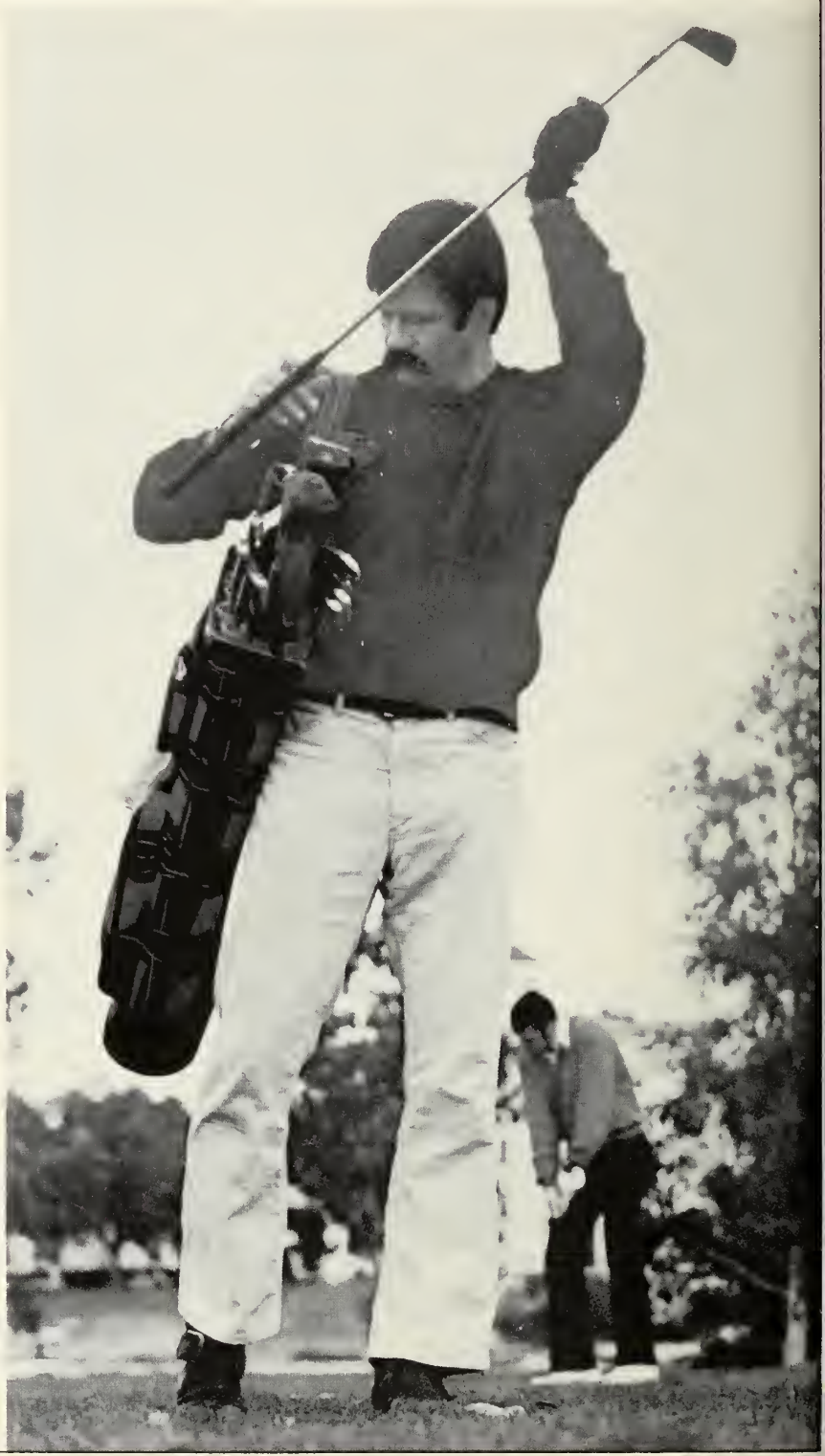
OFFICE SPACE—Passaic; Doctor's office, 2200 square feet, partially furnished. Suitable for one or more professionals. Available for occupancy July 1. Ample parking. Call (201) 777-3926.

OFFICE SPACE—Princeton Hopewell area. Ideal for family practitioner. 1000-2000 square feet. Call (609) 466-1569 or write John J. Orlando, Route 31, Hopewell, New Jersey 08525.

OFFICE SPACE—South Orange; Established Physician's office and or Practice and Equipment available, Spring or Summer, 1978. Excellent location. Call (201) 762-6148.

Information for Members—RATES:—$5.00 per insertion up to 25 words; 10 cents each additional word. Payable in advance. WORD COUNT: Count as one word all single words, two initials of a name, each abbreviation, isolated numbers, groups of numbers, hyphenated words. Count name and address as five words, telephone number as one word, and "Write Box No. 000, c/o THE JOURNAL" as six words. COPY DEADLINE: Fifth of preceding month.

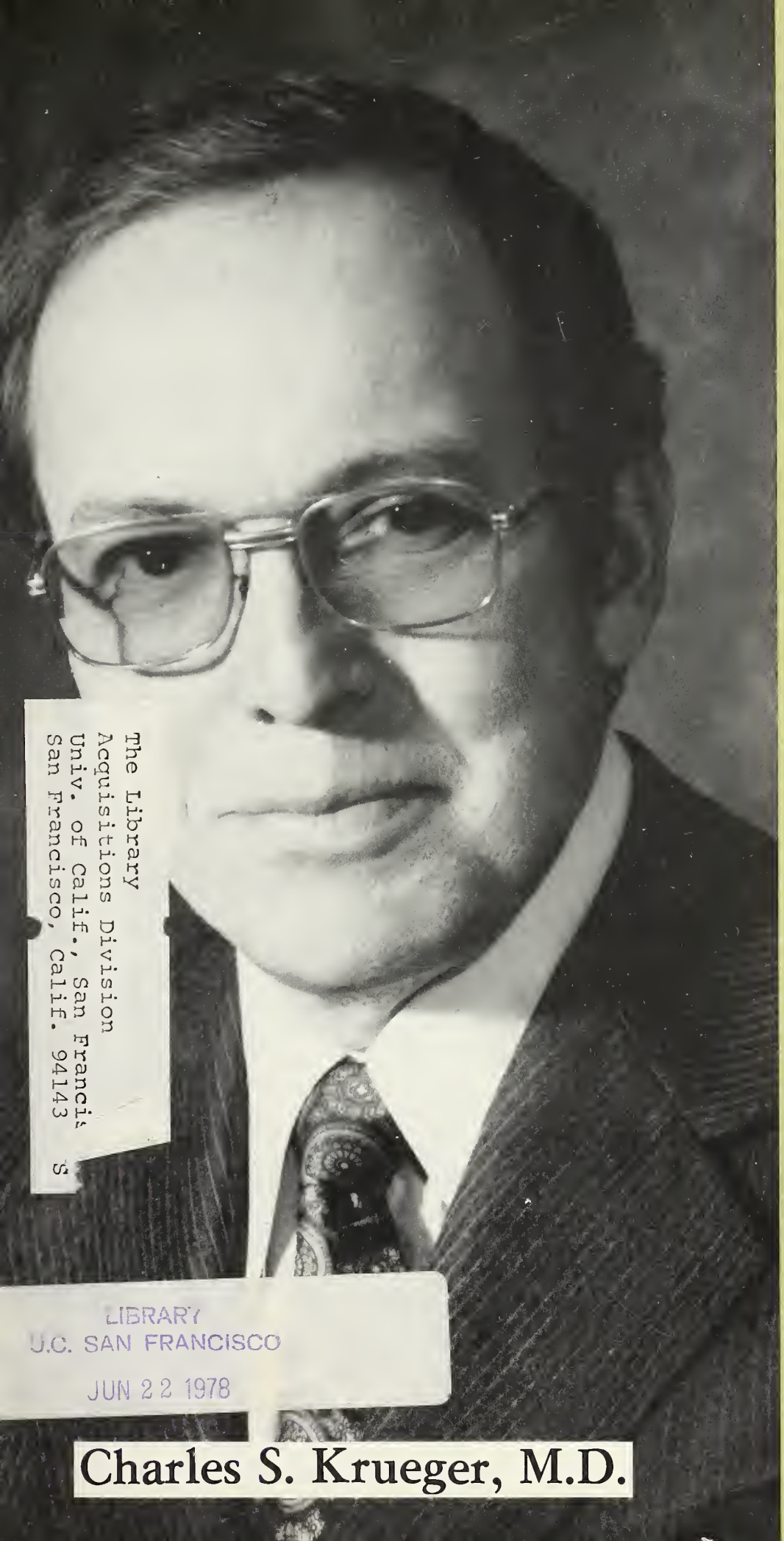
AS A DOCTOR, DO YOU HAVE TIME FOR THIS?



It's not all fun and games, but a Navy Doctor has the opportunity to make of it what he can. This could be you! For complete details, see your local Navy Recruiter, or call the Medical Recruiter, toll free, at 800-841-8000

June 1978

Journal of the Medical Society of New Jersey



The Library
Acquisitions Division
Univ. of Calif., San Francis
San Francisco, Calif. 94143

LIBRARY
U.C. SAN FRANCISCO
JUN 22 1978

Charles S. Krueger, M.D.

What Price We Pay
Charles S. Krueger, M.D.

Review of Meningitis
Leon F. Kukla, M.D.

Arterial Abnormalities Presenting as Pulsatile Tinnitus
M. A. Nevins, M.D., et al.

Doctors and Robert Louis Stevenson
Manuel J. Rowen, M.D.

Complete Table of Contents on Page 446

Check List For Savings

Under The Medical Society of New Jersey

Endorsed Insurance Plans

NEW HIGHER LIMITS	$4600 Monthly Accident and Health
TAX DEDUCTIBLE PREMIUM	$5,000 Professional Overhead Expense Plan
INCREASED FROM $150,000	$250,000 Term Life Insurance
$250,000 COVERAGE	Quarter-Million-Dollar Major Expense Plan
HIGH LIMITS— LOW COSTS	$200,000 Six Point High-Limit, Accidental Death, Dismemberment, Total Disability
EXTRA MONEY WHEN HOSPITALIZED	$60 a day Hospital Money-Indemnity Plan
$7500—15%	$7500 Tax-deductible KEOGH Plan and Corporate Master Plan

CHECK THIS LIST AGAINST YOUR COVERAGES . . . ASK FOR FREE NO-OBLIGATION INFORMATION ABOUT THE NEW MONEY-SAVING PLANS!

E. & W. BLANKSTEEN AGENCY, INC.

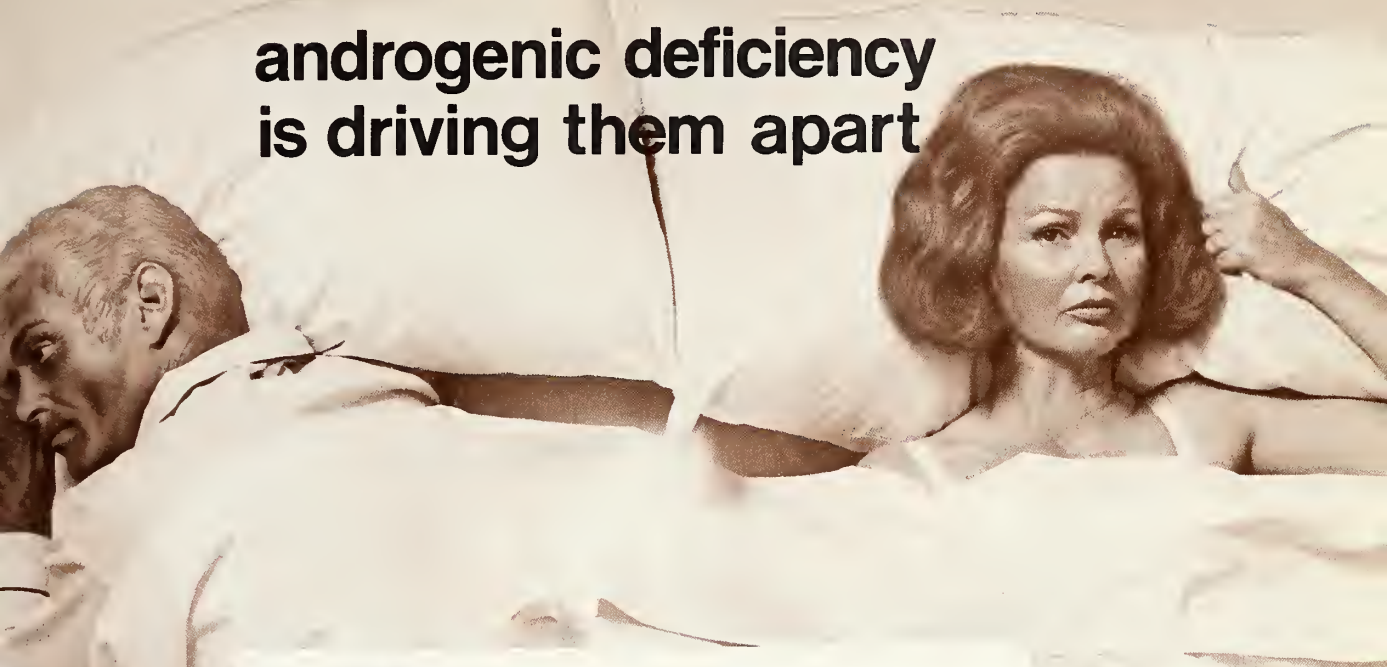
E. & W. BLANKSTEEN

75 MONTGOMERY STREET • JERSEY CITY, N.J. 07302

(201) 333-4340

When **impotence** *due to*

androgenic deficiency is driving them apart





Android®-5 Buccal Tabs

Android®-10 Oral Tabs

Android®-25 Oral Tabs

Methyltestosterone U.S.P. – 5, 10, 25 mg.

Additional Indications:

REPLACEMENT THERAPY. When Androgen Deficiency is cause of:

- Male Climacteric
- Eunuchoidism, Eunuchism
- Post-Puberal Cryptorchidism

New Double-Blind Study ANDROID-25 vs. Placebo*

*R. B. Greenblatt, M.D.; R. Witherington, M.D.,; I. B. Sipahioglu, M.D.; Hormones for Improved Sexuality in the Male and Female Climacteric. **Drug Therapy,** Sept. 1976.

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en-3-one. **ACTIONS:** Methyltestosterone is an oil soluble androgenic hormone. **INDICATIONS:** In the male: 1. Eunuchoidism and eunichism. 2. Male climacteric symptoms when these are secondary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Post-puberal cryptochidism with evidence of hypogonadism. Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention, and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued. **PRECAUTIONS:** Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity. **CONTRAINDICATIONS:** Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage. **WARNINGS:** If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastatic breast carcinoma. If this occurs, the drug should be discontinued. **ADVERSE REACTIONS:** Cholestatic jaundice • Oligospermia and decreased ejaculatory volume • Hypercalcemia particularly in patients with metastatic breast carcinoma. This usually indicates progression of bone metastases • Sodium and water retention • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia. **DOSAGE AND ADMINISTRATION:** Dosage must be strictly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following is suggested as an average daily dosage guide. **In the male:** Eunuchoidism and eunuchism, 10 to 40 mg.; Male climacteric symptoms and impotence due to androgen deficiency, 10 to 40 mg.; Postpuberal cryptorchism, 30 mg. **REFERENCE: Robert B. Greenblatt, M.D.,** and **D. H. Perez, M.D.:** "The Menopausal Syndrome," *Problems of Libido in the Elderly,* pp. 95-101. Medcom Press, N.Y., 1974. **HOW SUPPLIED:** 5, 10, 25 mg. in bottles of 60, 250. Rx only.

BROWN **THE BROWN PHARMACEUTICAL CO., INC.** 2500 West Sixth Street, Los Angeles, California 90057

REFER TO PDR

Write for Reprints and Samples.

THE MEDICAL SOCIETY OF NEW JERSEY

Founded July 23, 1766

Officers and Trustees

PRESIDENT
Charles S. Krueger, M.D. (Burlington) — Mount Holly
PRESIDENT-ELECT
Alfred A. Alessi, M.D. (Bergen) — Hackensack
FIRST VICE-PRESIDENT
George L. Benz, M.D. (Essex) — Newark
SECOND VICE-PRESIDENT
Augustus L. Baker, Jr., M.D. (Morris) — Dover
IMMEDIATE PAST-PRESIDENT
Frank R. Begen, M.D. (Bergen) — Teaneck
SECRETARY
Arthur Bernstein, M.D. (Essex) — Maplewood
TREASURER
Rudolph C. Gering, M.D. (Mercer) — Trenton

Trustees

CHAIRMAN
James S. Todd, M.D. (1980) (Bergen) — Ridgewood
Meyer L. Abrams, M.D. (1979) (Burlington) — Willingboro
Frank Campo, M.D. (1981) (Mercer) — Trenton
John J. Crosby, Jr., M.D. (1981) (Hudson) — Jersey City
Anthony P. DeSpirito, M.D. (1979) (Monmouth) — Neptune City
Sherman Garrison, M.D. (1980) (Cumberland) — Bridgeton
Armando F. Goracci, M.D. (1979) (Gloucester) — Woodbury
William Greifinger, M.D. (1981) (Essex) — Belleville
John P. Kengeter, M.D. (1981) (Ocean) — Toms River
Alexander Kovacs, M.D. (1981) (Union) — Scotch Plains
Richard E. Lang, M.D. (1981) (Passaic) — Passaic
Myles C. Morrison, Jr., M.D. (1979) (Morris) — Morristown
Howard D. Slobodien, M.D. (1981) (Middlesex) — Perth Amboy
Frank Y. Watson, M.D. (1980) (Essex) — Montclair

Councilors

FIRST DISTRICT
(Essex, Morris, Union, and Warren Counties)
Merton L. Griswold, Jr., M.D. (1981) — Plainfield
SECOND DISTRICT
(Bergen, Hudson, Passaic, and Sussex Counties)
John L. Olpp, M.D. (1980) — Englewood
THIRD DISTRICT
(Hunterdon, Mercer, Middlesex, and Somerset Counties)
Albert F. Moriconi, M.D. (1979) — Trenton
FOURTH DISTRICT
(Burlington, Camden, Monmouth, and Ocean Counties)
Frederick W. Durham, M.D. (1981) — Haddonfield
FIFTH DISTRICT
(Atlantic, Cape May, Cumberland, Gloucester, and Salem Counties)
John A. Surmonte, M.D. (1980) — Penns Grove

AMA Delegates

George L. Benz, M.D. (1980) — Newark
Karl T. Franzoni, M.D. (1980) — Trenton
Frank J. Hughes, M.D. (1978) — Camden
Emanuel M. Satulsky, M.D. (1978) — Elizabeth
James S. Todd, M.D. (1979) — Ridgewood
Robert E. Verdon, M.D. (1980) — Cliffside Park

June 1978

Publication Committee

Daniel B. Roth, M.D., *Chairman*
Julio C. del Castillo, M.D.
John F. Marshall, M.D.

Editor

Arthur Krosnick, M.D.

Associate Editors

William A. Dwyer, Jr., M.D.
Bernard D. Pinck, M.D.
Richard H. Rapkin, M.D.

Assistant Editor

Marjorie D. Treptow

Advertising Manager

Bettie N. Cookson

Executive Director

Vincent A. Maressa

Executive Director Emeritus

Richard I. Nevin

Manuscript Review Board

Jerome Abrams, M.D.
Francis P. Chinard, M.D.
Alfonse Cinotti, M.D.
Arthur Goldfarb, M.D.
Martin Goldfield, M.D.
Robert A. Goldstone, M.D.
M. Jay Goodkind, M.D.
Murray Kahn, M.D.
Sidney Ketyer, M.D.
Bernard J. Koven, M.D.
Henry R. Liss, M.D.
Hugh F. Luddecke, M.D.
Geobel A. Marin, M.D.
Murray Nussbaum, M.D.
Victor Parsonnet, M.D.
Leonard Policoff, M.D.
Irwin Pollack, M.D.
Edwin L. Rothfeld, M.D.
Benjamin Rush, M.D.
Mark M. Singer, M.D.
Leon G. Smith, M.D.
Sheldon D. Solomon, M.D.
Lloyd N. Spindell, M.D.
A. Arthur Sugerman, M.D.

Published monthly (since 1904) except semi-monthly in July (13 issues), under direction of the Committee on Publication, by the Medical Society of New Jersey, 315 West State St., Trenton, N.J. Printed in East Stroudsburg, Pa. by the Hughes Printing Co. Whole number of issues 886. Member's subscription ($10) is included in Society dues. Rates for nonmembers, $10; outside USA add $4 for postage. Single copies, $1. Address communications to *The Journal,* MSNJ, P.O. Box 904, Trenton, N.J. 08605 (609) 394-3154. Second-class postage paid at Trenton, N.J. and additional entry office.

Copyright 1978 by the Medical Society of New Jersey.

Time is the test of all things.

1954
1978



BRIEF SUMMARY

Indications: Oral potassium therapy for the prevention and treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. May be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

Contraindications: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause.

Precautions: Potassium intoxication by oral administration rarely occurs in patients with normal kidney function, however, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentrations of potassium ion may cause death through cardiac depression, arrhythmias or arrest. This drug should be used with caution in the presence of cardiac disease.

In hypokalemic states, especially in patients on a low-salt diet, hypochloremic alkalosis is a possibility that may require chloride as well as potassium supplementation.

Adverse Reactions: Nausea, vomiting, diarrhea, and abdominal discomfort have been reported. The most severe adverse effect is hyperkalemia.

Overdosage: Potassium intoxication may result from overdosage of potassium or from therapeutic dosage in conditions stated under "Contraindications". Hyperkalemia, when detected, must be treated immediately because lethal levels can be reached in a few hours.

Kaon® Elixir
potassium gluconate)
20 mEq per 15 ml

WARREN-TEED
LABORATORIES, INC.
DIVISION OF **ADRIA LABORATORIES INC.**
COLUMBUS, OHIO 43215

June 1978

Journal of the Medical Society of New Jersey

America's First Medical Society

Volume 75
Number 6

Pages 443-504

EDITORIALS

451 Charles S. Krueger, M.D.

451 Diabetes and the Nobel Prize

ORIGINAL ARTICLES

456 What Price We Pay
Charles S. Krueger, M.D., Mount Holly

461 Hemophilus Vaginalis Vaginitis and Gonorrhea in Pregnancy
Sidney Wilchins, M.D., Newark

463 Review of Meningitis
Leon F. Kukla, M.D., Newark

CASE REPORTS

467 Multiple Arterial Abnormalities Presenting as Pulsatile Tinnitus
M. A. Nevins, M.D.; L. J. Lyons, M.D.; J. E. Kim, M.D., Westwood

473 Neuroleptic-Induced Parkinsonism Facilitated by Alcohol
Elmar G. Lutz, M.D., Wayne

475 Reversible Anterior Q Waves and Myocardial Scintigraphic Findings
K. Y. Younan, M.D.; J. I. Haft, M.D., Newark

479 Renal Artery Stenosis and Ectopic Kidney
J. A. O'Donnell, M.D.; B. J. Brener, M.D.; D. K. Brief, M.D.; J. Alpert, M.D.; V. Parsonnet, M.D., Newark

SPECIAL ARTICLE

482 Doctors and Robert Louis Stevenson
Manuel J. Rowen, M.D., Elizabeth

484 **NUTRITION UPDATE**

DOCTORS' NOTEBOOK

486 Trustees' Minutes: April 16, 1978

490 CMDNJ Notes

490 Report from the Foundation

490 Physicians Seeking Location in New Jersey

491 Barbara Bronson Hammett — MSNJ Auxiliary President

492 **LETTERS TO THE JOURNAL**

494 **CME INFORMATION**

495 **CME CALENDAR**

496 **OBITUARIES**

499 **BOOK REVIEWS**

Cover

Charles S. Krueger, M.D., 186th President of the Medical Society of New Jersey, assumed the office on May 9, 1978. Dr. Krueger is a general surgeon with offices in Mount Holly. (See editorial, page 451, this issue.)

Retirement Plan Administration

Can become a...



...can of worms

LARGE PLANS CAN AFFORD PROFESSIONAL ASSISTANCE

NOW - Help is here for:

SMALLER CORPORATE PLANS
KEOGH PLANS
PROFESSIONAL CORPORATION PLANS

THE TAX ADVANTAGES OF GOOD RETIREMENT PLANNING NEED NOT BE SPOILED BY THE FRUSTRATION OF GOVERNMENT FORMS. PRO'S LOW COST, SIMPLE ERISA COMPLIANCE SERVICE RELIEVES YOU OF PAPERWORK AND WORRY.

PRO WILL ASSUME RESPONSIBILITY FOR PREPARING AND FILING ALL REQUIRED GOVERNMENT REPORTS. FOR MORE DETAILS SEND THIS COUPON:

I want to know more about your ERISA Compliance Service.
Please send details.

Name _____

Address _____

_____

Telephone _____

Send to PRO Administrators, Inc.
1107 Bethlehem Pike
Flourtown, Pa. 19031

Telephone: (215) 836-1300



Tolinase®
tolazamide, Upjohn

Please contact your Upjohn representative for additional product information.

Upjohn

J-5695-6

©1977 THE UPJOHN COMPANY

Information for Readers and Contributors

The Journal, the official organ of the Medical Society of New Jersey is published monthly under the direction of the Committee on Publication. Released the first week of the month, a copy is sent to each member of the Society. The goals of *The Journal* are educational and informational. All material published in *The Journal* is copyrighted by the Medical Society of New Jersey.

CONTENT

The educational content of each issue appears as original *scientific articles*, based on research, original concepts relative to epidemiology of disease, and treatment methodology; *case reports*, based on unusual clinical experiences; *review articles; clinical notes*, succinct items on some aspect or new observation or technique of a case experience; and *special articles*, which may include evaluations, policy and position papers, and reviews of non-scientific subjects. Material submitted here is for exclusive publication in *The Journal*. Upon request of the author, the Committee on Publication may give permission to authors of original material to reprint articles elsewhere with appropriate credit to *The Journal*. The principal aim in the preparation of contributions should be relevance to diagnosis and treatment and to education of patients and professionals. Preference will be given to professional authors from New Jersey and to out-of-state lecturers who submit a suitable manuscript based on a presentation made in New Jersey.

ASSIGNMENT OF COPYRIGHT

In compliance with the Copyright Revision Act of 1976 (effective January 1, 1978) a transmittal letter or a separate statement accompanying material offered to *The Journal* of the Medical Society of New Jersey must contain the following language and must be signed by *all* authors:

"In consideration of *The Journal* of the Medical Society of New Jersey taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to the Medical Society of New Jersey, in the event that such work is published in *The Journal, MSNJ.*"

Individuals, universities, libraries, and other non-profit organizations will be permitted to photocopy articles in *The Journal* for non-commercial, educational purposes.

SPECIFICATIONS

Manuscripts—Manuscripts must be typewritten double-spaced on 8-1/2 by 11" paper with margins of at least one inch. The original and one copy should be submitted to the Editors. Authors must understand that the material submitted is for the exclusive use of *The Journal* and will not be published elsewhere except in abstract form or with the consent of the Committee on Publication. Statistical methods used in articles should be identified. Acknowledgments of aid in preparation of manuscripts will not be made, except for specific preparation of an essential part of the manuscript (such as statistical data or special photographs).

Tables and Illustrations—Tables must be typewritten, double-spaced on separate 8-1/2 by 11" sheets. Each table must have a title and number. Symbols for units should be confined to column headings, and abbreviations, properly explained, should be kept to a minimum. Illustrations or figures should be of professional quality black-and-white glossy prints. They should be unmounted and not damaged by staples or paper clips. The name of the author, figure number, and the top of the figure should be noted on a label attached to the back of each illustration. Where photographs of patients are used, the subjects should not be identifiable or publication permission, signed by the subject or responsible person, must be included with the photograph. Material taken from other publications must give credit to the source; written permission for republication from the original publisher must be submitted. The cost of color photographs must be borne by the author.

Title Page—The title page should include the full name, degrees, and affiliations of all authors, and the name and address of the author to whom reprint requests should be sent.

Summary—The summary of the article should not exceed 250 words. It should contain the essential facts in such a form as to be understandable without reference to the text. Meticulous writing of this section is essential.

Abstract—The author should submit a 50-word abstract to be used at the beginning of the article.

Drug Names—Generic names should be used with proprietary names indicated parenthetically or as a footnote with the first use of the generic name. Proprietary names of devices should be indicated by the registration symbol—®.

References—References, which should not exceed 35 citations except in review articles, should be cited consecutively in the text by numbers in parentheses at the end of the sentence. The reference list should be typed double-spaced on separate 8-1/2 by 11" sheets in the numerical order in which they are first cited in the text. The style of references is that of *Index Medicus*.

Examples:

Goldwyn RM: Subcutaneous mastectomy. *J Med Soc NJ* 74:1050-1052, 1977.

Dixon WJ, Massey FJ: *Introduction to Statistical Analysis*. New York, McGraw-Hill, 1969, pp 00-00.

Accident Facts. Chicago, Illinois, National Safety Council, 1974.

PUBLICATION POLICY

Receipt of each manuscript will be acknowledged and a copy delivered to the Editor who refers the paper to one or more members of the Manuscript Review Board, who render an opinion to the Editor. The final decision is reserved for the Editor. No direct contact between the reviewers and the authors will be permitted, but authors will be informed of the reviewers' comments. The publication lag for original articles may be six months or more. Galley proofs will be submitted to the author for correction of typographical errors. Editorial changes which are made in the interest of clarity or good grammar may not be altered by the author. Reinsertion of redundant material deleted by the Editor is not permitted.

REPRINTS

Reprints may be ordered after the author is notified that his article has been selected for a specific issue of JMSNJ. A check for the cost of reprints including remake charge if order is received after due date must accompany the order.

COMMUNICATIONS

All communications should be sent to the Editor, *The Journal*, MSNJ, P.O. Box 904, Trenton, New Jersey 08605.

What's new at Bio-Science Philadelphia?

Always the latest specialized diagnostic tests.

Chemistry
Ferritin
Lipoprotein Cholesterol
Pyridoxal Phosphate
Riboflavin
Tryptophan

Endocrinology
Androstenedione
Calcitonin
C-Peptide
Estriol in Serum
Placental Estriol (Urine)
Pregnanetriol in Urine
Prolactin
17-OH Progesterone in Serum
Free Cortisol in Urine-RIA
17-Hydroxycorticosteroids in Urine

Immunochemistry
Anti-Extractable Nuclear Antigen
Fungus Ab Group
Intrinsic Factor Antibodies
Anti-tissue Antibodies
Progesterone Receptor Assay



Toxicology
Alkaloids and other bases
Anti-convulsants
Hypnotics and Tranquilizers
Free Erythrocyte Protoporphyrins
Cadmium in Blood
Hexachlorobenzene/ Hexachlorobutadiene
Ethylene Glycol

Screening Procedures
Routine Health Group
Chemistry Group
Executive Health Group
Coronary Risk Group

Therapeutic Monitoring
Darvon®
Succinimides
Theophylline
Gentamicin
Tobramycin
N-acetyl procainamide

Bio-Science

Bio-Science Laboratories

Philadelphia Branch
116 S. 18th Street
Philadelphia, PA 19103
(215) 561-6900

EDITORIALS

Charles S. Krueger, M.D.

The Medical Society of New Jersey and his patients are most fortunate that Charles S. Krueger, our new President, selected medicine rather than music as a career, and chose to settle in New Jersey after his early life and education in our neighboring state.

Born and educated in Erie, Pennsylvania, Dr. Krueger obtained a pre-medical education at Allegheny College, after which he attended and was graduated from Temple University Medical School. His internship at Hamot Hospital in his home town was followed by a stint in the U.S. Army from 1957 to 1959, including a year and a half in Frankfurt, Germany, where he served as a captain at the 97th general hospital. After the army experience there was a year of medical residency at Hamot Hospital and two years of general medical practice in Titusville, Pennsylvania, which preceded his surgical residency at Temple University Hospital. Since 1966, Dr. Krueger has been in the private practice of general surgery in Mount Holly. He is attending surgeon and assistant chief in the Department of Surgery, Burlington County Memorial Hospital, and Assistant Professor of Surgery at Hahnemann Medical College.

A former president of the Burlington County Medical Society, Dr. Krueger was certified by the American Board of Surgery. He is a Fellow of the American College of Surgeons, and a member of the Philadelphia Academy of Surgery and of the Academy of Medicine of New Jersey.

Irwin C. Krueger, M.D., our President's father, was a general practitioner in Erie, Pennsylvania. His mother was President of the Auxiliary of the Erie County Medical Society.

Dr. Krueger is an avid golfer with a "twelve handicap," according to a close observer, his wife, Mary C. Krueger. An amateur photographer over the years, his great love was the trombone, which he played in "dance bands" in high school and college to earn money. This activity, which nearly took him into a career in music, is now sublimated by listening to opera and symphonic music.

Dr. and Mrs. Krueger, with encouragement from their two sons, Charles J. and James F., recently took up skiing as an active winter sport with great enthusiasm.

Charles Krueger is very proud of his service to the New Jersey Foundation for Health Care Evaluation as a founder, board member, and former treasurer, and to the Southern New Jersey PSRO, as a board member and secretary.

The Medical Society of New Jersey is honored to have Charles S. Krueger as its 186th President. A.K.

Diabetes and the Nobel Prize

At an American Diabetes Association reception in New York in early March, your editor had the unique thrill of speaking to a near-winner of the Nobel Prize and a 1977 Nobel laureate. The contributions of each of these scientists to the betterment of mankind had to do with insulin, and this vignette of living history is worth telling.

Charles Herbert Best was born in 1899 in West Pembroke, Maine, but received his higher education in Canada. After graduating from the University of Toronto where his fields of concentration were physiology and biochemistry, Best volunteered as an assistant to Frederick Grant Banting on a project in the laboratory of Professor J. J. R. Macleod. Macleod initially discouraged Banting, but ultimately gave in to his persistent requests to study pancreatic secretions. Banting was granted laboratory space, ten dogs, an undergraduate assistant (Best) and eight weeks to extract the blood-sugar lowering material from the pancreas. The work was begun in May 1921. By July, the two researchers had an extract which lowered the blood sugar level of the dogs.* It first was administered to patients on January 11, 1922 at the Toronto General Hospital. Although Banting and Best discovered insulin, it was Professor Macleod, as head of the department that conducted the research, who announced the discovery. The Nobel Prize in physiology or medicine for 1923 was awarded to Banting and Macleod. Among his many honors, Banting received an investiture as a Knight Commander of the British Empire in 1934 and a fellowship in the Royal Society in 1935. Best went on to head the Banting and Best Department of Medical Research at the University of Toronto and to become professor and head of the department of physiology at that institution.

Rosalyn S. Yalow, Ph.D., a physicist by training, was the second woman in the 77-year history of the Nobel Prize to receive the award in the category of physiology or medicine. A native New Yorker, she and the late Solomon A. Berson, M.D., conducted their research at the Veterans' Administration Hospital in the Bronx, New York. Their technique, which made it possible to measure the blood level of insulin accurately for the first time, is considered one of the most

*Banting F G and Best C H: The internal secretion of the pancreas. *J Lab and Clin Med* 7:5. Reprinted in *Diabetes, A Medical Odyssey*. Tuckahoe, New York, USV Pharmaceutical Corporation, 1971.

significant medical discoveries in this century. By a radioimmunoassay procedure, Yalow and Berson opened new vistas to the understanding of Banting and Best's discovery, insulin, in both the diabetic and non-diabetic subject. Their assay method, which made it possible to measure other peptide hormones such as growth hormone and glucagon, also was utilized by the two other recipients of the 1977 Nobel Prize, Roger C. L. Guillemin and Andrew V. Schally. They isolated other peptide hormones from the hypothalamus, including somatostatin. The apparent utility of the Berson-Yalow procedure appears limitless.

At the New York meeting, we came upon Dr. Best† and his beloved wife having lunch at the Waldorf-Astoria Coffee Shop. A gentle and charming man, he graciously interrupted his meal, introduced Mrs. Best, and chatted a few moments as though we were old friends. Later, I observed him, looking a bit introspective, as her many friends of the Diabetes Association paid homage to Dr. Yalow. She too greeted each of us warmly, introduced us to her husband, and conversed a few minutes.

The corridor-talk that evening dealt with the way Best was "cheated" out of the Nobel Prize. The stories were that Macleod would not permit Best that recognition since he was only a student, but that Banting refused to accept the prize at first under those circumstances. According to Joseph M. Jones of the Mayo Clinic Section of Orthopedic Surgery, who was a contemporary of Banting, "Banting thought Best should have been included as a laureate, and immediately gave half his share (of the prize money) to Best."** Jones went on to contend, "It is unfortunate that the early credit for the discovery of insulin was given to Macleod. This situation was rectified as time went on."**

In her comments to the gathering, Dr. Yalow spoke about the importance of research and her regret that her research partner, Sol Berson, was cheated by death out of the Nobel Prize. She stated that the investment of money in research does not guarantee that fruitful discoveries will come forth, but she went on to say that *failure* to provide research funds *will* guarantee that *no* scientific revelations will be forthcoming. An interesting aside in this regard, by scientists who have served the National Institutes of Health as site visitors for research review, is also worth considering. It was said that, should we not have insulin today, a grant request based on the Banting-Best procedure, even though the out-of-pocket costs were less than one hundred dollars, doubtlessly would be turned down!

Diabetes, research, the Nobel Prize, scientists. These words and stories tell us that excitement, frustration, determination, ideas, and work lead to scientific disclosures. Yalow worked 60 or more hours per week while actively involved in her insulin studies. Banting and Best worked, ate, and slept in their simple laboratory day and night for months in 1921.

As clinicians, we appreciate and respect those unusual scientists and human beings—the Yalows and the Bersons and the Bests and the Bantings—for their contributions to our patients and to ourselves. A.K.

†Dr. Best died on March 31 in Toronto General Hospital after a brief illness.

**Jones JM: Sir Frederick Grant Banting, Orthopedic Surgeon. *Mayo Clin Proc* 42:501-510 (August) 1967.

We've Perfected The Business Side Of Medicine.



Let's face it. You've spent years perfecting your medical skills and developing your practice. You've selected only the top professionals for your staff. And AISC understands.

That's why we've perfected PFAMS, a complete Patient Financial Accounting Management System that virtually eliminates the time consuming, tedious task of handling the ever-increasing volume of paperwork associated with your practice.

Using only a video display, a keyboard, and a high-speed printer located in your office linked to our computer with a telephone line, AISC gives you a responsive, affordable business management system that provides you and your staff with instantaneous statement and insurance form processing, financial record keeping, appointment scheduling and much, much more, whether you're a solo practitioner or a multi-specialty group or clinic.

Call AISC for a free brochure or a demonstration.

AISC...We've perfected the business side of medicine.

aiscorp.

MEDICAL MANAGEMENT SYSTEMS

Bernards Professional Center
150 North Finley Avenue
Basking Ridge, N.J. 07920

(201) 221-0900



EMPIRIN®
COMPOUND
with CODEINE

Each tablet contains: aspirin, 227 mg; phenacetin, 162 mg; and caffeine, 32 mg; plus codeine phosphate in one of the following strengths: #4—60 mg (gr 1), #3—30 mg (gr ½), #2—15 mg (gr ¼); and #1—7.5 mg (gr ⅛). (Warning—may be habit-forming). C III

Wellcome | Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Brief Summary of Prescribing Information
Combined TEGOPEN® (cloxacillin sodium)
Capsules and Oral Solution
For complete information, consult Official Package Circular. (12) TEGOPEN 9/11/75

Indications: Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

Important Note: When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

Contraindications: A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

Warning: Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

Precautions: The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

Adverse Reactions: Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

Usual Dosage: Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B.: INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

Supplied: Capsules—250 mg. in bottles of 100, 500 mg. in bottles of 100. Oral Solution—125 mg./5 ml. in 100 ml. and 200 ml. bottles.

BRISTOL® BRISTOL LABORATORIES
Division of Bristol-Myers Company
Syracuse, New York 13201



IN THE NEW JERSEY AREA, STAPH RESISTANCE HAS NOW REACHED 86%.*

*resistance to penicillin G among community-acquired staph infections. Data on file, Bristol Laboratories.

WHEN YOU CAN'T RULE OUT STAPH, CONSIDER

TEGOPEN®
(cloxacillin sodium)

..."THE PENICILLIN OF TODAY"

- Effective against nonpenicillinase-producing staphylococci, beta-hemolytic streptococci, and pneumococci.†

†NOTE: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin. The clinical significance of *in vitro* data is unknown.

- 10 times more active against strep than staph.
- Well absorbed from the G.I. tract.‡

‡Maximum absorption occurs when Tegopen is taken on an empty stomach, preferably 1-2 hrs. before meals.



Please see brief summary for prescribing information.

What Price We Pay*

CHARLES S. KRUEGER, M.D., Mount Holly

- Patients should share the cost of their health care
- Let free enterprise and patient preference determine which plans are best (fee-for-service, HMO, IPA)
- Medical or surgical judgment should be made only after thoughtful personal physician-patient input
- There must be good peer utilization review and PSRO is a start in the right direction
- Health departments should be involved in patient education
- Single practitioner has little hope of influencing his destiny
- A strong professional society must be the backbone of our collective efforts

As government intervention in the delivery of health care increases, their guidelines soon become standards. Because our medical care is the most expensive in the world, we are bombarded with statements calling for fiscal restraint or cost containment. And now, we are told that our medical care is not the best in the world.

Joseph A. Califano, Jr., Secretary of the Department of Health, Education, and Welfare, has charged that voluntary controls and efforts toward cost containment will not work and that far stronger regulations are needed. He has charged the AMA and other health care groups with motivation by self interests. He stated that the odds are against the survival of the solo practitioner because we no longer want him to survive and he anticipates more HMO's because now we physicians are being well paid for our services to them.

The Federal Trade Commission, because of its stated responsibility to remove unfair restraints on competition to protect the consumer, is bringing about control over the medical profession. The Commission recently has barred some state and specialty societies from using relative-value fee schedules because it considers this price fixing. The Commission concludes that patients are being denied information they need for the free choice of a physician because our principle of medical ethics imposes unlawful restrictions on physician advertisement. It is also investigating the possibility that physicians have undue influence over Blue Shield and existing HMO's. We even are accused of unwarranted restrictions on the practice of several allied health professions because of our role in their accrediting organizations.

A United States General Accounting Office report states that the best way to cut hospital costs, two-thirds of which are directly attributable to doctors, is to eliminate fee-for-service practice and that we should be held responsible if costs continue to rise.

In mid-April Califano proposed cost control initiatives for the medical profession. He suggested that Medicare payments for laboratory tests and medical equipment be limited to the lowest price available in the community and that Medicare computer screening be tightened in order to audit medical necessity better. He also recommended that second-opinion programs in surgery and other health procedures be accelerated and that specific lengths of stay be set to reduce excessive hospitalization.

It is easy to see what is happening. But who will be responsible for the increased costs of these new programs necessary for control? Who is to pay for the increase in government bureaucracy? The medical profession is being faulted for our alleged failure to show constructive input. We are blamed as individual practitioners and our professional organizations are criticized.

It has become clear to me that only by joining a strong, widely representative organization, such as the Medical

*Inaugural address on the occasion of the author's induction into the presidency of the Medical Society of New Jersey. Presented to the House of Delegates, May 7, 1978, Atlantic City.

Society of New Jersey, will individual physicians be able to have significant impact on the system. This does not mean that each individual should not have strong specialty organizations—and even unions—but it means a strong professional society must be the backbone of our collective efforts.

Our profession always has been faced with problems. To turn back a page in history, two hundred and twelve years ago seventeen physicians gathered in Duff's Tavern in New Brunswick and formed the Medical Society of New Jersey. By so doing, they formed the first such organization in the Colonies. These doctors felt that it was "a time for doctors of professional standing to band together." The primary stimulus for joining was to combat the "quacks who set themselves up as Doctors of Medicine."

In 1766 the first order of business was to establish a Table of Fees so that physicians would have a "just and equitable reward for their services, at least to live by their useful profession." Adequate compensation, so that a physician could be self-sustaining, was a goal at that time. Conditions have changed. Now, we are told that perhaps we are too well compensated for our services.

Our founding fathers made educational qualifications a prerequisite for membership in the Society and they recognized there should be influence in legislation through a "key-man" set up, much as we have today. Each member physician was expected to contact and influence the legislator in his home area. The effectiveness of this system was shown by the passage of a law in 1772 regulating the practice of medicine; it required that licensing be on the recommendation of two Supreme Court Judges, who in turn would be advised by two members of the Society.

Today the overriding concern and expectation of the American public is universal quality medical care. This goal of total health care is one we physicians expected to fill when we chose our careers. We constantly are reminded by government and others that many people are not receiving this care, either in quantity or quality, and that the cost of such care is not distributed equally. Will this be an affordable cost?

I doubt that any physicians feel that all people do not deserve the best of health care, but the problem is that our resources are not infinite. We recognize that we cannot be all things to all people, as we would like to be, but the government does not. For years, our government has set up costly programs with the idea that all deserve equal care, without responsibility as to the cost of this care. One cannot fault most of these programs, many of which were backed by organized medicine. The availability of quality health care is a right and we must find a way to pay for this right. Is 130 billion dollars or eight percent of our gross national product too much? Are we willing to increase this amount, which we most certainly must, if a new total coverage program is legislated? If, in our present system, all but a small minority are covered by some type of health insurance, be it private or government, in the form of Medicare or Medicaid, should the entire system be changed to cover these few? Of course we must reduce this minority further, but I fear it never will be reduced to zero without tremendous cost. We hope it will be reduced significantly with some reasonable changes or additions to our present system.

Today this House of Delegates is about to take action on some far-reaching problems. The most important will be our deliberations on the report of the National Commission of the Cost of Medical Care. By now, we all know that this was conceived by the Board of Trustees of the AMA with physician input as well as input by other health care providers, consumers, and government personnel. It is of interest that a similar "Committee on the Cost of Medical Care" was organized 51 years ago, reporting its recommendations in 1932. I anticipate considerable discussion, and I hope that positive decisions will be forthcoming on each of the present 48 recommendations. Many of these recommendations are understood easily and we ought to accept them.

However, some recommendations will be controversial and should have significant influence on the future delivery of health care. Economic incentives are becoming the most discussed factors in health care plans. There should be alternate delivery systems and alternate financing arrangements such as prepaid and fee-for-service medical care. It is recommended that there be variety in the choice of these health care plans. Tax incentives or rebate are suggested. Patients should share the cost of their health care. All should be undertaken with a cost awareness by physicians, other health care providers, and patients. The Commission states that there should be a strengthening of "price consciousness."

If the free enterprise system is not successful in cost containment, the alternative is increasing regulation. If our single, primarily fee-for-service system of health care delivery is allowed to continue as a monopoly, more public utility control can be anticipated, and this is something we all should oppose. With this in mind, closed panel HMO's or open panel IPA's might not seem so bad. Let free enterprise and patient preference make the decision as to which plans are best.

Government wants to expand the Certificate of Need program to areas outside the hospital to include private physicians' offices. One perhaps could agree with regulating large dollar purchases for equipment used to service hospital-based patients. But what of the overwhelming bureaucracy necessary to monitor lesser equipment in offices and, finally, the services in physicians' private practices?

There are those who feel a second opinion, prior to elective surgery, would lessen the number of operations. Rather than giving credit to this system with perhaps a differing surgical opinion, I believe the patient has become aware that surgery isn't always necessary. It is the patient's decision, and perhaps his way of describing his illness, that determines the necessity of surgery at a particular time. Still, I hope, that all medical or surgical judgment will continue to be made after thoughtful, personal physician-patient input.

Defensive medicine need not always increase the price of medical care, if appropriate care guidelines are considered in the court room. Perhaps in time, professional liability claims will be placed outside the traditional court room-jury setting.

Quality care, in a personal setting, should remain. The traditional physician-patient relationship should be preserved. This cannot be determined by simple review of the record. There must be good peer utilization review. The final answer may be a long way off, however, PSRO is a start in the right direction.

For years physician supply has been inadequate. Now it becomes apparent that there are enough of us, as long as the geographic distribution to underserved areas is corrected, and as long as increasing numbers join the less crowded specialities, especially those devoted to primary practice.

Of real concern, is the use, certification, and licensing of allied health personnel directly involved in patient care. This concern is with all physicians and nurses who traditionally have been responsible for patient care. We fear that the licensing of these allied health care personnel eventually may

allow them to practice independently. We must extend our services through these people, but how formal should their training be, and how much recognition in the form of certification should be given, are questions that must be answered. It is mandatory that a licensed physician be responsible for their services, and that reimbursement be channeled through him.

I would like government and health departments to become more involved in patient education. Unquestionably, money spent for the development of more healthful life styles—no smoking, less drinking, proper eating, attention to weight and exercise—would contribute more to the well-being and longevity of the American public, as compared to similar monies spent in the development of new surgical techniques and medical research.

We have come a long way in two hundred years. Your Medical Society has focused on all of the foregoing problems. More will be forthcoming. Input from all of us is required and there is no better forum than this House of Delegates.

To do its job your Society will require a greater expenditure of money in the years to come. Over one million dollars yearly is necessary for this Society to function properly. When the Society was first founded, there were no dues. This didn't last very long; however, the dues remained minimal. This year we find that a significant increase in our dues is necessary. Whereas, before you might have called us a "cheap society" ranking 48th out of 50 states. Now, faced with a dues increase from $120 to $200, we will move into 25th place.

Yet, what an investment! We have been able to influence government. We have offered high quality in our private care. We successfully have handled malpractice. Insurance is not cheap but is available in a company which has the best reinsurance credit rating in the United States. We are cooperating with the State Health Department in pursuing the possible savings to the cost of hospital care offered by the incentives in a new program based on diagnostic related groups. We are well along with a program for helping the impaired physician. We have cooperated with the Hospital Association in a committee on voluntary cost containment. Having completed its PSRO development, our Foundation for Medical Care Evaluation moves ever on, continuing the development and, hopefully, implementation of an independent practice association. Our political action committee, JEMPAC, has demonstrated a very positive input into the political arena. Education still plays an important role in our Society, though some of this has been taken over by our specialty groups. We soon must come to grips with CME, credit being a qualification for continued membership. We hope our legislative package on professional liability will be enacted this year, with the cooperation of Governor Byrne, his administration, and party. This fall we will be moving into our new million dollar headquarters building in Lawrenceville. The Board of Trustees, councils, and committees continue to do yeoman work for our Society.

A physician no longer must belong to a medical society in order to have hospital staff privileges. Membership in our state society is no longer a prerequisite to obtaining malpractice insurance. However, in these changing times, in this maze of increasing government involvement and consumerism, a single practioner has little hope of influencing his destiny. We must have a strong professional society. It must be the backbone of our collective efforts.

It is with this I challenge you. Remain a member. Join. Invest $200. Your return is priceless.


COLACE prevents hard, dry stools common to constipation . . . and does it without laxative stimulation. COLACE assists peristalsis by simply letting intestinal water permeate stools.
COLACE helps to prevent painful straining at stool—particularly important in patients with delicate anorectal disorders. Safe and non-habit forming . . . COLACE, the simple water way to ease constipation from infancy to old age.
Simple drops of water help make COLACE® the most widely used stool softener.
COLACE®
dioctyl sodium sulfosuccinate
Mead Johnson
PHARMACEUTICAL DIVISION



Does it influence your choice of a peripheral/cerebral vasodilator*?

- Vasodilan—compatible with coexisting diseases
- Vasodilan—compatible with concomitant therapy
- Vasodilan—compatible with your total regimen for vascular insufficiency

*Indications: Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows:

Possibly Effective:

1. For the relief of symptoms associated with cerebral vascular insufficiency.
2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease.

Final classification of the less-than-effective indications requires further investigation.

Composition: Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg.

Vasodilan injection, isoxsuprine HCl, 5 mg., per ml.

Dosage and Administration: Oral: 10 to 20 mg., three or four times daily.

Intramuscular: 5 to 10 mg. (1 or 2 ml.) two or three times daily. Intramuscular administration may be used initially in severe or acute conditions.

Contraindications and Cautions: There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

Parenteral administration is not recommended in the presence of hypotension or tachycardia.

Intravenous administration should not be given because of increased likelihood of side effects.

Adverse Reactions: On rare occasions oral administration of the drug has been associated in time with the occurrence of hypotension, tachycardia, nausea, vomiting, dizziness, abdominal distress, and severe rash. If rash appears the drug should be discontinued.

Although available evidence suggests a temporal association of these reactions with isoxsuprine, a causal relationship can be neither confirmed nor refuted.

Administration of single dose of 10 mg. intramuscularly may result in hypotension and tachycardia. These symptoms are more pronounced in higher doses. For these reasons single intramuscular doses exceeding 10 mg. are not recommended. Repeated administration of 5 to 10 mg. intramuscularly at suitable intervals may be employed.

Supplied: Tablets, 10 mg., bottles of 100, 1000, 5000 and Unit Dose; Tablets, 20 mg., bottles of 100, 500, 1000, 5000 and Unit Dose; Injection, 10 mg. per 2 ml. ampul, box of six 2 ml. ampuls.

U.S. Pat. No. 3,056,836

VASODILAN®

(ISOXSUPRINE HCl)

20-mg tablets

Mead Johnson PHARMACEUTICAL DIVISION

© 1978 MEAD JOHNSON & COMPANY • EVANSVILLE, INDIANA 47721 U.S.A. MJL7-4268

Hemophilus Vaginalis Vaginitis and Gonorrhea in Pregnancy

SIDNEY WILCHINS, M.D., Newark*

Hemophilus vaginalis vaginitis and gonorrhea occur in the pregnant as well as in the non-pregnant woman. In the pregnant woman the obligation to make an accurate diagnosis and institute appropriate treatment is even greater than in the non-pregnant woman due to the need to protect the fetus. Diagnostic methods and treatment protocols for these two conditions are delineated.

Non-specific vaginitis and gonorrhea commonly occur in women of reproductive age. The gestational status of the female does not protect her from either non-specific vaginitis or gonorrhea. Indeed, the physiologic alterations of the vaginal environment during pregnancy, in some circumstances, actually may enhance the development of vaginitis due to hemophilus vaginalis or the gonococcus.

Cervical and vaginal secretions increase and present as a thickened whitish discharge. Vaginal pH varies from 3.5 to 6 as a result of the action of Doderlein's bacillus on intracellular glycogen of the vaginal epithelium.[1]

DIAGNOSIS OF H. VAGINALIS VAGINITIS

Hemophilus vaginalis has been isolated more frequently from pregnant than from nonpregnant women[2]. Presenting complaints may include the discharge itself, a strong odor which sometimes is described as "fishy," and itching or burning of the labia and introitus. Dyspareunia also has been reported.

Speculum examination may reveal whitish material coating the cervix, vaginal walls, and pooling in the posterior fornix. Bubbles in the discharge have been observed in fifteen percent of cases[3].

Diagnosis cannot be accurate without appropriate laboratory procedures, the simplest of which is microscopic examination of the vaginal wet smear. A drop of the discharge is mixed in saline and placed on a slide. Characteristic "clue cells" are seen when hemophilus vaginalis is present.[4] These are epithelial cells covered with small bacilli appearing as dots on the surface of the cell.

Because of the fastidious nature of the organism, it is difficult to culture. Casman's blood agar and thioglycolate broth have been used with some success. "Clue cells" can be identified on Papanicolaou smears which should be done at the time of the first antepartum visit.

TREATMENT

The organism can be treated effectively with oral ampicillin; the dose is two grams daily administered in divided doses for five days. The cephalosporins also may be used. Tetracycline is not as effective as ampicillin but may be prescribed as an alternative for those patients with penicillin allergies. Tetracycline, however, should not be used in the latter part of pregnancy as it will stain the primary dentition of the fetus. If it is desirable to avoid systemic medications, hemophilus vaginalis will respond to topical vaginal therapy with sulfa creams or tablets. Betadine® (providone-iodine) gel also has been used, but the douche should be avoided during pregnancy due to potential problems of improper administration. Intravaginal medication may be used ini-

*Dr. Wilchins is Clinical Associate Professor, Department of Obstetrics and Gynecology, New Jersey Medical School, CMDNJ. Correspondence may be addressed to him at the Martland Hospital Unit of the College, 65 Bergen Street, Newark 07107.

tially with systemic antibiotics being reserved for the patient with recurrent signs and symptoms or persistent hemophilus vaginalis infection which becomes intolerable.

Reinfection can be avoided by treating both partners simultaneously. Treatment in pregnancy is limited to those women with signs, symptoms, and confirming wet smear, as the organism may be indigenous to the vagina in some patients.[5] This reduces the use of medication during pregnancy. Neonatal infections of hemophilus vaginalis rarely have been reported.[6]

GONORRHEA

Neisseria gonorrhea can be contracted prior to conception, during conception, or at any time during the course of pregnancy. Several authors have found that the risk of disseminated gonococcal infection is increased during pregnancy, especially in the second and third trimesters[7,8]. In the first trimester, the infection may be asymptomatic and localized, but gonococcal salpingitis may occur[9]. Acute salpingitis does not occur after the third month due to fusion of the chorion to the decidua which obliterates the uterine cavity. This process is enhanced further by the formation of the cervical mucus plug. Systemic dissemination of the gonococcus occurs *via* hematogenous spread and can result in arthritis and, rarely, endocarditis. Localized infection also can occur in the second and third trimester.

Gonorrhea is at epidemic proportions in the United States, having a case rate increase of 120 percent between 1957 and 1971[10]. Endocervical cultures are, therefore, essential at the time of the first antepartum visit, regardless of social class of the patient population. Trans-grow media under CO_2 or Thayer-Martin plates in a candle jar can be used for cultures. Gram stain has been used to identify this gram-negative intracellular diplococcus but it is not as accurate as cultures. Standard lubricants should not be used on the speculum as they can interfere with the growth of this fastidious organism. In certain high-risk populations, it may be wise to repeat the culture as term is approached.

Gonococcal infection of the newborn is better averted by astute diagnoses and treatment of the maternal infection, rather than treatment of the newborn. Gonococcal conjunctivitis has occurred in spite of routine silver nitrate prophylaxis; maternal gonococcal infection also has been associated with increased fetal loss and low birth weight[11].

Treatment recommendations of the Center for Disease Control are identical for pregnant and nonpregnant females. Four million eight hundred thousand units of aqueous procaine penicillin G should be given intramuscularly with one gram of probenecid administered orally just prior to the injection. An alternative is oral ampicillin therapy. Oral dosage packages are available containing 3.5 grams of ampicillin with one gram of probenecid. The entire content of the package is taken at one time.

For those with penicillin allergies, two grams of spectinomycin may be injected intramuscularly. Erythromycin may be given orally in dose of 1.5 grams, immediately followed by 2 grams daily in divided doses for four days.

For treatment of disseminated gonococcal infections, 10 million units of aqueous penicillin G should be given intravenously daily for seven days or erythromycin may be administered intravenously in the dose of 500 mg four times a day for three days. Endocarditis requires 10 million units of penicillin intravenously daily for three to four weeks while meningitis requires the same dosage for ten days.

A follow-up test of cure by repeat cultures is essential, in addition to repeat cultures as term is approached. The patient's sexual partner also must be treated. Repeated serologic tests for syphilis also are warranted. It is believed that early adequate treatment will protect the fetus.

SUMMARY

It is important for every practitioner who deals with pregnant women to keep in mind that pregnancy is no protection against the development of hemophilus vaginalis vaginitis or of gonorrhea. Indeed, as noted above, pregnancy actually may enhance the occurrence of these two conditions. Patients can be relieved and fetuses protected by careful observation of the patient's symptoms along with performance of the appropriate laboratory work to achieve accurate diagnosis, followed by the appropriate management as outlined.

REFERENCES

1. Pritchard JA, MacDonald PC: Maternal Adaptation to Pregnancy. In: *Williams Obstetrics*, 15th ed. New York, Appleton-Century-Crofts, 1976, p. 175.

2. Lewis JF, O'Brien SM, Ural UM, Burket J: Corynebacterium vaginale vaginitis in pregnant women. *Am J Clin Path* 56:580, 1971.

3. Fleury FJ: Management of hemophilus vaginalis. *The Female Patient* 2:28, 1977.

4. Gardner HL, Dukes CD: Hemophilus vaginalis vaginitis. *Am J Obstet Gynecol* 69:962, 1955.

5. Galask RP, Larsen B, Ohm MJ: Vaginal flora and its role in disease entities. *Clin Obstet Gynecol* 19:77, 1976.

6. Platt MS: Neonatal hemophilus vaginalis infection. *Clin Pediatr* 10:513, 1971.

7. Holmes KK, Count SGW, Beatty HN: Disseminated gonococcal infection. *Ann Intern Med* 74:979, 1971.

8. Taylor HA, Bradford SA, Patterson SP: Gonococcal arthritis in pregnancy. *Obstet Gynecol* 27:776, 1966.

9. Acosta AA, Mabray CR, Kaufman RH: Intrauterine pregnancy and coexistent pelvic inflammatory disease. *Obstet Gynecol* 37:282, 1971.

10. Fiumara NJ: The diagnosis and treatment of gonorrhea. *Med Clin N Amer* 56:1106, 1972.

11. Sarrel PM, Prvett KA: Symptomatic gonorrhea during pregnancy. *Obstet Gynecol* 32:670, 1968.

A Five-Year Review of Meningitis

LEON F. KUKLA, M.D., Newark*

Meningitis, which is associated with significant morbidity and mortality, is more frequent in infancy than at any other time of life. Since it is a readily treatable disease, a knowledge of the epidemiology and causative agents, as determined from surveys, as well as a large index of suspicion, is helpful to the treating physician. The most common bacterial cause is Hemophilus influenzae.

Meningitis is a common problem in the younger pediatric patient, but the actual incidence is not known since meningitis is not reportable. The usual incidence figures have been extrapolated from the reported death rate due to meningitis and the mortality rate generally associated with each agent. The Center for Disease Control, Atlanta (CDC) has estimated that approximately 40,000 cases of bacterial meningitis occur each year in the United States and 90 percent of these occur in the first five years of life.[1] In the United States, *Hemophilus influenzae* is the most common etiologic agent (30,000 cases estimated by CDC). Some studies have shown an increase in the incidence of Hemophilus influenzae meningitis,[2] while others fail to demonstrate any significant change in incidence.[3,4] In Europe, particularly the northern Europan countries such as England, *Neisseria meningitidis* is the most common organism in children.[5]

We recently have reviewed a five-year experience at the Martland Medical Center with regard to meningitis in children and present a review of our experience.

RESULTS

For the period January 1, 1972 through December 31, 1976, forty-five charts were obtainable with the diagnosis of meningitis. An additional fifteen charts were not available or were incomplete. Cases of tubercular meningitis, neonatal meningitis (neonatal defined as less than twenty-eight days of age), and meningitis associated with central nervous system anomalies or trauma were excluded.

Of the forty-five cases, twenty-two were viral or aseptic (no bacterial agent isolated) and twenty-three were bacterial in origin. The breakdown by organism is listed in Table I. There were twenty-three males and twenty-two females.

Presenting symptoms for all cases are listed in Table II. High fever, vomiting, and seizure were most frequent with bacterial meningitis. Aseptic meningitis, as anticipated, was associated with what is usually described as viral symptomatology, e.g., upper respiratory symptoms, gastrointestinal symptoms, and poor feeding; but some patients presented with more toxic symptoms.

In Table III, the cases are classified according to age. Eighty percent of all patients were less than one year of age. In the bacterial group, eighty-seven percent were less than one year of age, while the patients with aseptic meningitis tended to be very young infants or older children.

Of particular significance in Table IV is the fact that fifty-eight percent of patients had a duration of symptoms of twenty-four hours or less.

In Table V, the occurrence by month is tabulated. Aseptic meningitis predominated from June through October. Hemophilus influenzae predominated in early winter and pneumococcal meningitis in later winter.

The white blood cell counts failed to show any specific

*Dr. Kukla is Assistant Professor of Pediatrics, Preventive Medicine and Community Health, New Jersey Medical School, CMDNJ. Correspondence may be addressed to him at Martland Hospital, 65 Bergen Street, Newark 07107.

Table I – *Bocterial Orgonisms*

Total No. of Cases	Organisms Isolated: Hemophilus Influenzae	S. pneumoniae	Neisseria meningitidis	E. coli	Group B Streptococcus
23	13	4	2	2	2

Table II – *Presenting Symptoms*

	No. of Patients	Type of Meningitis: Aseptic	Bacterial
High fever (T 103°)	32	12	20
Vomiting	18	5	13
Seizure	13	4	9
URI symptoms	11	7	4
Lethargy	6	2	4
Irritability	5	5	
Diarrhea	3	3	
Poor feeding	4	2	2
Tachypnea	3	2	1
Headache	2	2	

Table III – *Age Groups*

Age	No. of Patients: Total	Aseptic	Bacterial
less than 6 months	25	13	12
6 months to 1 year	11	3	8
1 year to 5 years	6	3	3
Older than 5 years	3	3	0

Table IV – *Duration of Symptoms*

Duration of Symptoms	No. of Patients: Total	Aseptic	Bacterial
1 day or less	26	12	14
2 or 3 days	17	9	8
Greater than 3 days	2	1	1

Table V – *Occurrence by Month of the Yeor*

Month	Etiology of Meningitis: Hemophilus Influenzae	Neisseria meningitidis	S. pneumoniae	E. coli	Group B Streptococcus	Aseptic
January			1			
February		1	2			1
March	2					
April					1	
May					1	1
June	2					4
July						7
August						3
September	1			1		2
October		1				2
November	2		1	1		2
December	6					

Table VI – *Totol Cerebrospinol Fluid White Cell Count*

Cells per cubic millimeter	Etiology of Meningitis: Hemophilus Influenzae	S. pneumoniae	Neisseria meningitidis	E. coli	Group Streptococcus	Aseptic
< 100	1			1	1	10
100-300	1	1				5
300-1000	1	2			1	5
1000-2000	3	1	1			2
>2000	7		1	1		

correlation with viral or bacterial etiology. In regard to cerebrospinal fluid (CSF) findings, Hemophilus influenzae meningitis manifested high CSF white cell counts usually over 1,000 WBC/ccm. (Table VI) As anticipated, in aseptic ingitis the CSF white cell count ranged from 20 to 400 while in pneumococcal meningitis, the range was 100 to 800 (Table VI). Complications and mortality are listed in Table VII and Table VIII.

Complications included subdural effusion (two with S. pneumoniae, one each with Hemophilus influenzae and aseptic meningitis) septic arthritis (two with Hemophilus influenzae) gastrointestinal bleeding, (one patient with S. pneumoniae) and cellulitis (one patient with E. coli). As to mortality, none of the aseptic cases died, but a four-month-old male died of S. pneumoniae meningitis, and a one-month-old female died of Group B streptococcal meningitis.

DISCUSSION

Aseptic meningitis occurred in summer or fall among children who presented with symptoms usually associated with viral infection such as upper respiratory symptoms, gastrointestinal symptoms, and irritability. Although there was no mortality, several patients were critically ill, manifested seizures, or had complications such as pneumonia or dehydration secondary to gastrointestinal symptoms. In general, CSF white cell counts were low (20 to 100) and there was no correlation with differential counts (polymorphonuclear leukocytes versus lymphocytes).

H. influenzae was the most common bacterial organism. Cases generally presented in early winter. Of thirteen patients septic arthritis occurred in two, seizures in two, and subdural effusions in one. The most significant correlative CSF finding was that H. influenza produced very high white cell counts, i.e., more than 1000 in ten of thirteen cases.

Pneumococcal meningitis occurred in four patients, all of whom were six months of age or less. Although the CSF was not markedly purulent, these patients tended to be critically ill. One four-month-old patient expired. Differential leukocyte counts in the CSF and peripheral blood were not useful indicators. Pneumococcal meningitis has been associated with marked morbidity and mortality in black male patients less than eight months of age.[6]

E. coli meningitis occurred in two patients, both of whom were one month of age. Both had complicated neonatal histories and had been treated with antibiotics in the newborn period.

Group B streptococcus occurred in two patients, aged one month and two months respectively. The one-month-old patient expired on the day of admission.

There were only two cases of N. meningitides infection, a two-month old and a nine-month old.

Eighty percent of the patients seen at the Martland Hospital Center were less than one year of age and fifty-five percent of the total number of patients were less than six months of age. This incidence approximates that which other centers serving an urban population have experienced. The incidence of viral or aseptic meningitis may be slightly higher than that seen in community hospitals since the evaluation of many infants with high temperature and a toxic appearance includes a lumbar puncture in this institution.

The only significant correlation with cerebrospinal fluid findings was high white cell counts in H. influenzae meningitis and generally low counts in aseptic meningitis. The two patients with aseptic meningitis with high counts (both 1800) were young infants with similar histories; they were seen in the same month, were not related, and did not reside in the same area.

As a general rule, a lumbar puncture is indicated in any infant who is toxic, even if symptoms are only of one day's duration. After appropriate studies, ampicillin in doses of 400 mg/kg/24 hrs should be administerd to the infant over three months of age. In the younger infant, high doses of penicillin G (250,000 units/kg/24 hrs) plus kanamycin or ampicillin plus kanamycin should be initiated until the results of blood and spinal fluid cultures are available. If penicillin is used in the young infant, high doses are required for Group B Streptococcus[7] and pneumococcal meningitis.

Pneumococcal meningitis is associated with high morbidity and mortality, particularly in black male infants, and should be treated aggressively when suspected.

SUMMARY

Meningitis is an important disease entity in the first year of life because of its incidence, morbidity, and mortality. The non-specific symptoms and short-time duration, usually one to three days, make it imperative that meningitis be a consideration in any infant who appears toxic on physical examination. Meningitis in children is caused almost equally by viral and bacterial agents. Bacterial meningitis, which occurs more frequently in early winter, is most commonly caused by H. influenzae. Other organisms include S. pneumoniae and, in younger infants, Group B streptococcus and E. Coli. The only effective means to prevent complications is rapid sterilization of the CSF with appropriate antibiotics since morbidity and complications correlate with the duration of bacteria in the CSF.

REFERENCES

1. Smith DH, Ingram DL, Smith AL, Gilles F, and Bressnan MJ: Bacterial meningitis: A symposium, *Pediatr* 52:586, 1973.

2. Michaels RH: An increase in influenzal meningitis. *N Engl J Med* 285:666, 1971.

3. Smith EW and Haynes R: Changing incidence of *Hemophilus influenzae* meningitis. *Pediatr* 50:723, 1970.

4. Parke JC, Schneerson R, and Robbins JB: The attack rate, age incidence, racial distribution, and case fatality rate of H. Influenzae type B meningitis in Mecklenburg County, North Carolina. *J Pediatr* 81:765, 1972.

5. Goldacre MJ: Acute bacterial meningitis in childhood: Incidence and mortality in a defined population. *Lancet I* 7949:28, 1976.

6. Richter RW and Brust JC: Pneumococcal meningitis at Harlem Hospital, *NY J Med* 71:2747, 1971.

7. McCracken GH and Feldman WE: Editorial comment on Group B streptococcal infection. *J Pediatr* 89:203, 1976.

contains no aspirin

tablets

Darvocet-N® 100 Ⓒ IV

100 mg. Darvon-N® (propoxyphene napsylate)
650 mg. acetaminophen



Lilly

Additional information available to the profession on request from Eli Lilly and Company Indianapolis, Indiana 46206

700565

Eli Lilly and Company, Inc.
Carolina, Puerto Rico 00630

Multiple Arterial Abnormalities Presenting as Pulsatile Tinnitus

MICHAEL A. NEVINS, M.D., LEONARD J. LYON, M.D., JAE M. KIM, M.D., Westwood*

A 46-year-old woman complained of constant pulsation in one ear. Three vascular abnormalities, bilateral fibromuscular dysplasia of carotid arteries, berry aneurysm, and elongated narrowing of the left internal carotid artery, were diagnosed. Neither antecedent trauma, vasculitis, nor systemic disease were present. A bruit was heard over the left renal artery. Three months later a repeat arteriogram revealed patency of the previously narrowed portion of the left internal carotid artery. We believe the tinnitus was due to spontaneous dissection of the left internal carotid artery and that it subsided as blood flow gradually was restored with resorption of the clot in the "false channel."

Pulsatile tinnitus is an uncommon symptom which patients with occlusive carotid arterial lesions or primary otologic diseases such as otosclerosis may experience. The following case report describes the unexpected discovery of three distinct abnormalities of carotid arteries in such a patient.

CASE REPORT

A 46-year-old female, who had been in good health, became aware of a constant pulsation in her left ear. There had been no related illness nor associated symptoms. The tinnitus persisted for several days so she consulted an otolaryngologist. There was no ear pathology, but the symptom could be obliterated by pressure over the left common carotid artery. No other pertinent history was elicited.

Physical Examination—A bruit was audible over each carotid artery, more prominent on the left. The peripheral pulses were normal, but a soft bruit was heard over the left renal artery. The blood pressure was normal and the remainder of the physical and neurologic examination was unrevealing.

Tinnitus persisted for a week, so carotid angiography seemed to be advisable. The patient was hospitalized; routine examinations failed to reveal vasculitis or other systemic disorder.

Bilateral selective carotid arteriograms demonstrated a two-centimeter segment of marked narrowing of the left internal carotid artery (Figure 1) with corrugated appearance of the internal carotid distal to the bifurcation. There was post-stenotic dilatation of the left internal carotid artery at the base of the skull immediately proximal to the carotid canal of the left petrous pyramid. The right internal carotid artery also was corrugated and tortuous and, in addition, there was a berry aneurysm (Figure 2) along the medial aspect of the right internal carotid artery at the level of the anterior cavernous sinus near the optic canal. There was no evidence of arteriovenous malformation. A selective right vertebral arteriogram showed no abnormality. The radiologic diagnosis was: 1) fibromuscular dysplasia of both internal carotid arteries, 2) berry aneurysm of the right internal carotid artery in the vicinity of the right optic foramen, 3) marked narrowing of the left internal carotid artery suggesting dissecting aneurysm.

Over a one-month period, the symptoms gradually subsided. On the advice of Dr. W. K. Ehrenfeld, San Francisco, California, angiography was repeated about three months after the first study to define the nature of the elongated narrowing of the left internal carotid artery. Again, fibromuscular dysplasia of both carotid arteries and the aneurysm were shown. However, when compared with the previous examination, the new study showed patency with no appreciable stenosis in the extracranial portion of the left internal

*From the Departments of Medicine and Radiology, Pascack Valley Hospital, Westwood and Bergen Pines County Hospital, Paramus. Dr. Nevins is Co-Director of Medical Education at the latter and correspondence may be addressed to him there.



Figure 1—Left carotid arteriogram (direct needle puncture) demonstrating marked narrowing (arrow) of left internal carotid. In this view overlying external carotid artery partially obscures left internal carotid.



Figure 2—Right carotid arteriogram. Arrows show beading and berry aneurysm.

carotid artery. (Figures 3 and 4) This suggested resorption of clot in the "false channel" of a dissecting aneurysm. Six months after the onset of symptoms the patient was well, but on occasions when tired she notes minor tinnitus which is far less than the persistent and prominent symptoms described originally.

DISCUSSION

Fibromuscular dysplasia of the renal arteries is a well-known pathologic entity. In 1964, Palubinskas and Ripley reported the first case of extrarenal fibromuscular dysplasia and suggested that this disease was a generalized arteriolar defect.[1] Two years later, Wiley *et al.* described 19 additional patients with lesions of extrarenal arteries resembling fibromuscular dysplasia.[2] In eleven patients, the renal arteries also were involved. In this series, six patients had lesions of the internal carotid arteries, which caused symptoms of cerebral ischemia in two of them. In addition, nine patients with fibromuscular dysplasia of the carotid or renal arteries had intracranial aneurysms and two others developed intracranial hemorrhage in the absence of demonstrable aneurysm. Histologic examination of carotid and renal arteries revealed similar findings with prominent degeneration or absence of media, disruption of elastica, and loss of the internal elastic membrane.

Houser and Baker[3] reviewed more than 5000 cerebral angiograms demonstrating fibromuscular dysplasia in 16 cases with associated intracranial aneurysm in four. Alternate zones of widening and narrowing of the arterial lumen was the characteristic feature with a maximum narrowing of approximately 40 percent. The dilatations or "microaneurysms" which were always wider than the normal lumen, appeared as small sacculations of the arterial wall separated from one another by irregularly spaced, sharply localized constrictions. The usual location was in the middle two or three centimeters of the internal carotid artery; the pathology was bilateral in 85 percent of cases.

In 1975, Harrington *et al.*[4] reviewed 45 previously reported cases of fibromuscular hyperplasia of the internal carotid artery and added five more. They postulated that the disease might represent generalized arterial dysplasia involving a defect in the elastic tissue. In this series, the incidence in 2000 carotid angiograms was 0.25 percent with females predominating over males by nine to one. Ninety percent of patients had bilateral involvement and approximately one half were associated with berry aneurysm formation.

Ehrenfeld and Wiley[5] have accumulated a large personal series. In 1974, they reported on the surgical management of 20 patients with symptomatic fibromuscular dysplasia of the internal carotid artery. A wide spectrum of preoperative complaints included transient ischemic symptoms and completed strokes. Among the surgical techniques employed was graduated internal dilation of the otherwise inaccessible internal carotid artery. Recently, Ehrenfeld and Wiley[6] described 19 patients with spontaneous dissection of the internal carotid artery. This condition, heretofore considered rare, may be more common than previously supposed and may present with acute neurologic symptoms compatible with stroke or transient ischemic attacks. Three of these patients had bilateral carotid bruits and were found to have underlying fibromuscular dysplasia suggesting that dissection accounts for some of the symptoms in these patients. A characteristic angiographic finding of dissection is narrowing ("string sign") in the cervical portion of the internal carotid

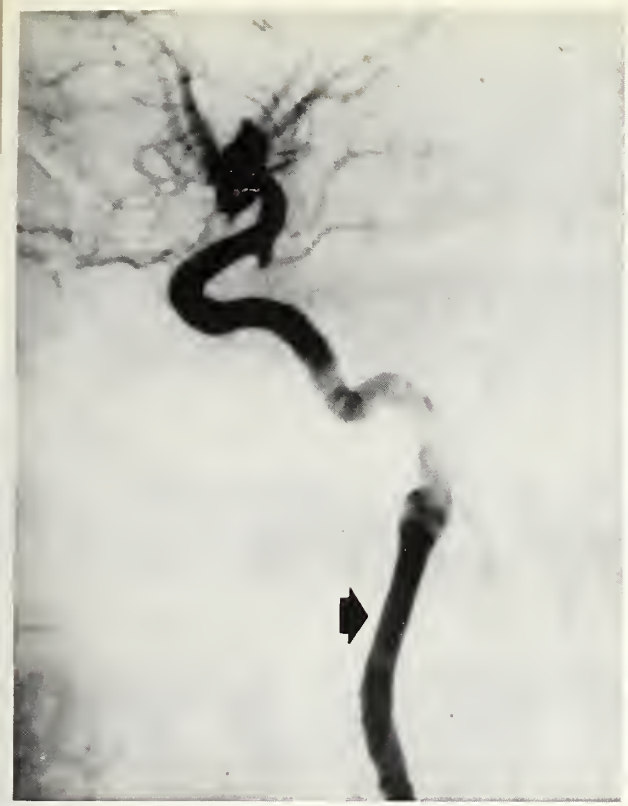


Figure 3—Selective left carotid arteriogram, lateral view. Arrow demonstrates resolution of previously narrowed segment.

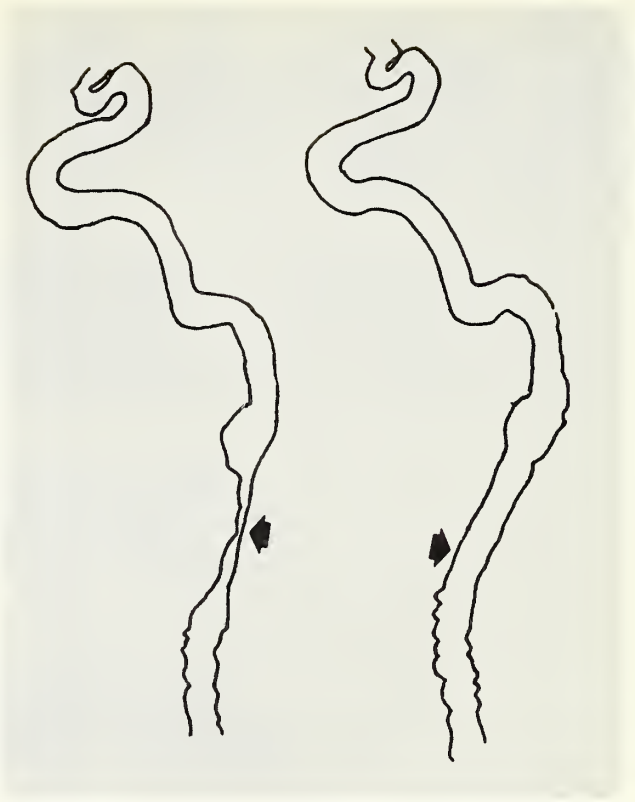


Figure 4—Direct tracing from Figures 1 and 3 showing resolution of narrowed 2 centimeter segment between 3/1/77 (left) and 5/26/77 (right). For diagrammatic purposes the proximal corrugated appearance, which is poorly seen in Figures 1 and 3, is exaggerated.

arteries. Four patients in this series of spontaneous dissections had associated intracranial aneurysms. Dissections occurred in the outer layer of the media and, in several patients, there was spontaneous regression with subsequent restoration of the luminal diameter presumably due to resorption of thrombus within the outer lumen. None of the patients who recovered spontaneously after a short follow-up period developed further neurologic symptoms.

Two recent reports described a fatal outcome of patients who had developed acute neurologic symptoms attributable to multiple spontaneous dissecting aneurysms of the cervical arteries in association with fibromuscular dysplasia.[7,8] In one case, a 16-year-old boy suddenly developed symptoms after throwing a snow ball and died two weeks later. Multiple intracranial dissections were found at autopsy and many arteries of the body displayed fibromuscular dysplasia. In another case report a 49-year-old man experienced sudden pain in the head and neck while skiing and four hours later developed dense hemiplegia. Postmortem examination of this patient revealed fresh dissecting aneurysms of all four major cervical arteries.

Osborn and Anderson recently reviewed the angiographic findings of 25 patients with cervical and intracranial fibromuscular dysplasia[9]. Twenty patients were female with an average age of 45.6 years. The disease was bilateral in 65 percent and associated intracranial aneurysms were noted in 10 percent. Three distinct angiographic patterns were described. The most common type, occurring in 89 percent, was characterized by a "string of pearls" appearance. A less common type, encountered in three patients, showed smooth unifocal or multifocal tubular stenosis. This angiographic pattern is less specific than the "string of pearls" appearance and might also be encountered in Takayasu's arteritis, arterial hypoplasia, diminished vessel caliber due to decreased blood flow, catheter-induced spasm, or carotid dissection.

In our case, the fact that the narrowed area "opened up" on subsequent angiographic examination and the finding elsewhere of characteristic beading supports the diagnosis of dissection associated with fibromuscular dysplasia. Angiography was performed without incident and there was no reason to believe that narrowing of the left internal carotid artery was due to spasm or to iatrogenic dissection. Furthermore, the presence of tinnitus prior to the study and later reduction of symptoms with restoration of patency support the hypothesis that narrowing and tinnitus were related and preceded the arteriogram. The reason for dissection in this case is unknown since there was no prior specific head or neck injury. However, previous cases of spontaneous dissection or dissection after minimal trauma in patients with fibromuscular dysplasia have been reported.[7,8] There was no clinical or laboratory evidence to support a diagnosis of vasculitis as the cause of diffuse narrowing of the internal carotid artery in our case, but the presence of berry aneurysm, dissecting of aneurysm and fibromuscular dysplasia suggests a congenital defect of the internal elastica or media.

Our patient is of particular interest because of the relatively minor and transient nature of her symptoms. However, the tinnitus was disturbing enough to prompt medical evaluation which, in turn, led to the unanticipated discovery of three distinct arterial disorders, i.e., fibromuscular dysplasia, spontaneous dissection of the left internal carotid artery, and intracranial berry aneurysm. Although we elected not to attempt reconstructive surgery, the long-term prognosis is uncertain. The patient was advised to avoid neck trauma, and to take aspirin prophylactically. We will observe her

carefully for the development of hypertension. This case serves as a sobering reminder that sinister lesions may present with trivial complaints. In the absence of better knowledge of the natural history of this disorder, the issue of how much to do and how much to tell remains a disturbing problem.

REFERENCES

1. Palubinskas AJ, Ripley HR: Fibromuscular hyperplasia in extra renal arteries. *Radiol* 82:451, 1964.
2. Wylie EJ, Binkley FM, Palubinskas AJ: Extrarenal fibromuscular hyperplasia. *Am J Surg* 112:149-155, 1966.
3. Houser OW, Baker HL: Fibromuscular dysplasia and other uncommon diseases of the cervical carotid artery: Angiographic aspects. *Am J Roentgenol* 104:201-212, 1968.
4. Harrington OB, Crosby VG, Nicholas L: Fibromuscular hyperplasia of the internal carotid artery. *Ann Thor Surg* 9:516-524, 1970.
5. Ehrenfeld WK, Wylie EJ: Fibromuscular dysplasia of the internal carotid artery. *Arch Surg* 109:676-681, 1974.
6. Ehrenfeld WK, Wylie EJ: Spontaneous dissection of the internal carotid artery. *Arch Surg* 111:1294-1301, 1976.
7. Pilz P, Hartjes HJ: Fibromuscular dysplasia and multiple dissecting aneurysms of intracranial arteries. *Stroke* 7:393-398, 1976.
8. Ringel SP, Harrison SH, Norenberg MD, Austin JH: Fibromuscular dysplasia: Multiple "spontaneous" dissecting aneurysms of the major cervical arteries. *Ann Neurol* 1:301-304, 1977.
9. Osborn AG, Anderson RE: Angiographic spectrum of cervical and intracranial fibromuscular dysplasia. *Stroke* 8:617-626, 1977.

Series 14/20: A higher fixed-fee program.

Effective this month, Blue Shield is introducing its new and highest fixed-fee program. In fact, the fees for eligible services are some 40 percent higher than those in the Series 750 program, and double those in the old Series 500 program.

If you are not a Participating Physician, you may now wish to join the 8,900 physicians who provide service benefits to our subscribers. Income limits for service benefits in this program are $20,000 family income and $14,000 for single, unmarried subscribers.

Examples of fees paid under the three programs are:

	Series 500	Series 750	Series 14/20
Appendectomy	$184	$263	$368
Tonsillectomy	68	98	137
Hysterectomy	289	413	578
Colectomy, partial	315	450	630
Prostatectomy	341	488	683
Medical Care - First Day (Including History & Physicial)	23	33	46
Medical Care, Subsequent Days	7	10	14
Consultation, Comprehensive	32	45	63
Vaginal Delivery	210	300	420

If you have any questions about this new program, or if you would like to join, please call (201) 456-3250.

Blue Shield
of New Jersey

87

Officially Endorsed by *The Medical Society of New Jersey*

a new group major medical program for Doctors

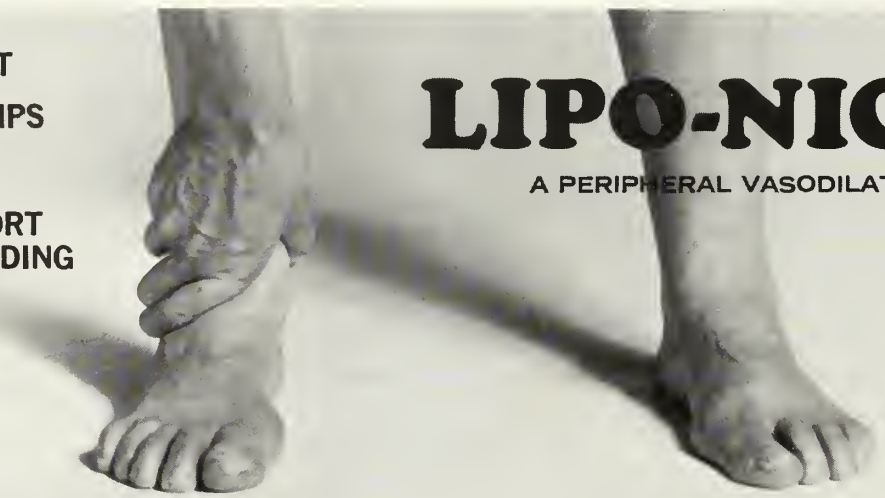
- LOW RATES
- BROAD COVERAGE
- OPEN ENROLLMENT - JUNE AND DECEMBER

For More Information Contact
Donald F. Smith and Associates

Research Park, 1101 State Road • Princeton, New Jersey 08540 • (609) 924-8700 or (201) 622-6046

Underwritten by New Jersey Blue Cross-Blue Shield.

COLD FEET
LEG CRAMPS
TINNITUS
DISCOMFORT ON STANDING



LIPO-NICIN

A PERIPHERAL VASODILATOR

IMMEDIATE or GRADUAL

nicotinic acid therapy

IMMEDIATE RELEASE

LIPO-NICIN/100 mg.
Each blue tablet contains:
Nicotinic Acid .....100 mg.
Niacinemide ..... 75 mg.
Ascorbic Acid .....150 mg.
Thiemine HCL (B-1) .. 25 mg.
Riboflevin (B-2) ..... 2 mg.
Pyridoxine HCL (B-6).. 10 mg.
DOSE: 1 to 5 tablets daily.
AVAILABLE: Bottles of 100, 500, 1000.

LIPO-NICIN/250 mg.
Eech yellow tablet contains:
Nicotinic Acid .....250 mg.
Niacinemide ..... 75 mg.
Ascorbic Acid .....150 mg.
Thiemine HCL (B-1) .. 25 mg.
Riboflavin (B-2) ..... 2 mg.
Pyridoxine HCL (B-6).. 10 mg.
DOSE: 1 to 3 tebiets deily.
AVAILABLE: Bottles of 100, 500, 1000.

GRADUAL RELEASE

LIPO-NICIN/300 mg.
Eech time-releese capsule contains:
Nicotinic Acid .....300 mg.
Ascorbic Acid ..... 150 mg.
Thiamine HCL (H-1) .. 25 mg.
Riboflavin (B-2) ..... 2 mg.
Pyridoxine HCL (B-6).. 10 mg.
In a special bese of prolonged therapeutic effect.
DOSE: 1 to 3 tablets daily.
AVAILABLE: Bottles of 100, 500.

Indications: For use as a vesodiletor in the symptoms of cold feet, leg cremps, dizziness, memory loss or tinnitus when associated with impaired peripheral circulation. Also provides concomitant administration of the listed vitemins. The warm tingling flush which mey follow each dose of LIPO-NICIN 100 mg. or 250 mg. is one of the therapeutic effects that often produce psychological benefits to the patient. **Side Effects:** Transient flushing and feeling of warmth seldom require discontinuation of the drug. Trensient headeche, itching and tingling, skin resh, allergies and gastric disturbence mey occur. **Contraindications:** Petients with known idiosyncrasy to nicotinic ecid or other components of the drug. Use with caution in pregnant patients and petients with glaucoma, severe diabetes, impaired liver function, peptic ulcers, end arterial bleeding.

BROWN **THE BROWN PHARMACEUTICAL CO., INC.** 2500 West Sixth Street, Los Angeles, California 90057

Write for Literature and Samples

REFER TO PDR

Neuroleptic-Induced Parkinsonism Facilitated by Alcohol

ELMAR G. LUTZ, M.D.*, Wayne

Alcohol can facilitate the emergence of drug-induced parkinsonism. It can lower the neurotoxic tolerance to previously prescribed neuroleptic drugs. Neurochemical aspects are discussed. Abstinence from alcohol intake should be routine advice during neuroleptic psychopharmacotherapy.

The development of extrapyramidal side effects caused by neuroleptic medication in moderate and high doses is well known. The occurrence of such complications with small doses of neuroleptics, however, necessitates closer investigation of the precipitating pathophysiological circumstances.

I postulated ethyl alcohol or ethanol as one such predisposing and precipitating factor, and reported the sudden occurrence of drug-induced akathisia and dystonic reactions in patients under the influence of ethyl alcohol which had come to my attention on numerous occasions.[1] The less drastic and more subtle development of parkinsonism in patients receiving phenothiazine or butyrophenone derivatives also occurs in a substantial number of patients accustomed to regular, even minimal, alcohol intake. No mention of such occurrence has been found in the literature. The following case sample should suffice to illustrate the author's clinical experience.

CASE REPORT

A 54-year-old widow with a chronic anxiety state and intermittent depressive symptoms of five years' duration had been treated successfully with a combination of perphenazine, two mg, and amitriptyline hydrochloride, 25 mg, once or twice daily for four years without any overt extrapyramidal side effect. When seen four weeks following remarriage, she showed moderate cogwheel rigidity and hand tremor at rest of the left arm, mild cogwheel rigidity in the right arm, moderate akinesia, near loss of associated arm movements, decreased mimetic expression and a hyperactive glabellar reflex. This patient, previously unaccustomed to alcoholic beverages, following her remarriage and upon her husband's insistence, joined him in his daily ritual of consuming one or two cocktails at suppertime. Her only medication for six months prior to the development of drug-induced parkinsonism was perphenazine, two mg, and amitriptyline hydrochloride, 25 mg, at bedtime.

The parkinsonian symptoms subsided progressively over the next four weeks after she was advised to abstain from alcoholic beverages. No antiparkinsonian medication was given even though the bedtime medication was continued.

DISCUSSION

While a single intake of an alcoholic beverage might suffice to trigger a dystonic or akathisic reaction in patients on neuroleptics, more prolonged alcohol intake is needed to develop the state of extrapyramidal insufficiency described as parkinsonism.

It has been hypothesized that normal extrapyramidal function of the striatal neurons is the result of a homeostatic balance between the dopaminergic and cholinergic systems.

*Dr. Lutz is Chairman, Department of Neuropsychiatry, St. Mary's Hospital, Passaic. Address reprint requests to 896 Valley Road, Wayne, N.J. 07470.

Normal conditions result when dopamine and acetylcholine are in balance.

According to McGeer[2] parkinsonism results from a defect in dopamine in the presence of normal acetylcholine. McGeer states that tyrosine hydroxylase levels fall significantly in the human brain during the aging process, tilting the balance of neurotransmitters in the corpus striatum toward the parkinsonian state. This appears to coincide with my clinical experience. While mild parkinsonian features were rarely observed in the younger patients who were prone to dystonic and akathisic reactions, the older age group tended to develop drug-induced parkinsonism. This occurred simultaneously or following mild akathisia, but more often as the primary and only clinically manifest extrapyramidal syndrome.

Tyrosine hydroxylase as one of the enzymes involved in the synthesis of neurotransmitters converts tyrosine to dopa, which is a step in the synthesis of both dopamine and norepinephrine. McGeer did not find any significant change in the enzyme choline acetyltransferase, which synthesizes acetylcholine.

It is conceivable that alcohol impairs the tyrosine hydroxylase enzyme system preferentially and so produces an imbalance in the dopaminergic and cholinergic systems in the corpus striatum.

Ethanol potentiation of drug side effects is known. Acute ethanol ingestion can impair hepatic enzyme systems and retard the metabolism of numerous drugs[3,4]. It is likely that so-called neurologic non-reactors precipitate extrapyramidal side effects through brain dysfunction induced by alcohol or other means.

In 1968 I described shortlasting akathisia during combined electroconvulsive therapy (ECT) and phenothiazine therapy.[5] ECT-induced brain dysfunction, with changes in cerebrovascular permeability as the underlying pathogenic substrate, appears to lower the threshold of resistance to extrapyramidal side effects. Neuronal dysfunction, whether functional or permanent ("organic") in nature, tends to diminish the reparative processes against the neurotoxicity of neuroleptics.

Kreig[6] described the complex situation and stated that the mechanisms underlying the various clinical conditions associated with pathosis of the extrapyramidal system cannot be fully understood from an examination of the brain postmortem, for lesions are too varied and uncorrelated with the minimal dysfunction. The one trait these abnormal motor patterns have in common, however, is the exaltation of the strength of the stretch reflex. Since the extrapyramidal system, which is phylogenetically and ontogenetically older than the pyramidal system, influences the more stereotyped activities, one may hypothesize that drug-induced extrapyramidal side effects occur as release phenomena when controlling cerebral mechanisms are inhibited, as for instance, by alcohol.

The development of parkinsonism in my patients on small doses of neuroleptic drugs has led me to discover alcoholic problems previously denied. However, even minor regular intake of alcohol can lead to clinically manifest parkinsonism, since ethanol can lower the tolerance to previously prescribed neuroleptic drugs.

Considering the widespread social acceptance of alcoholic beverages, the prophylactic use of antiparkinsonian drugs should be considered for the ambulatory patient who cannot be trusted to abstain fully from alcohol. Frequent admonitions to abstain from alcohol intake should be routine advice during neuroleptic psychopharmacotherapy.

REFERENCES

1. Lutz EG: Neuroleptic-induced akathisia and dystonia triggered by alcohol. *JAMA* 236:2422, 1976.
2. McGeer EG: Fall in enzymes in brain linked to parkinsonian state in elderly. Paper given at the annual meeting of the American Society for Clinical Pharmacology and Therapeutics and abstracted in *Clinical Psychiatry News* 4:5 (June) 1976.
3. Lieber CS: Hepatic and metabolic effects of alcohol (1966 to 1973). *Gastroenterol* 65:821-846, 1973.
4. Rubin E, Gang H, Missa PS and Lieber CS: Inhibition of drug metabolism by acute ethanol intoxication. *Am J Med* 49:801-806, 1970.
5. Lutz EG: Shortlasting akathisia during combined electroconvulsive and phenothiazine therapy. *Dis Nerv Syst* 29:259-260, 1968.
6. Kreig W: *Functional Neuroanatomy*. New York, Blakiston 1953, p. 333.

Reversible Anterior Q Waves in the Absence of Myocardial Infarction: Myocardial Scintigraphic Findings

KIVARIKIS Y. YOUNAN, M.D. AND
JACOB I. HAFT, M.D., Newark

A 48-year-old male with three-vessel coronary disease presented with electrocardiographic findings suggestive of anterior myocardial infarction. Stannous pyrophosphate and thallium scintigrams supported the diagnosis but enzymes did not change. R-waves across the precordium returned two months later. The same ischemic circumstances that led to the reversible Q-waves also apparently can lead to scintigraphic abnormalities.

The diagnosis of acute transmural myocardial infarction usually is made without difficulty from the clinical presentation, serial electrocardiograms, and serial enzyme studies. In some instances, one sees electrocardiographic (ECG) changes compatible with myocardial infarction that are not accompanied by enzyme changes and that are not permanent. It has been postulated that severe ischemia can cause these ECG abnormalities. It is the purpose of this report further to document that non-reversible Q waves can be caused by severe ischemia and to demonstrate cardiac scintigram and angiographic left ventricular data that support this concept.

CASE PRESENTATION

A 48-year-old male mechanic was admitted to Saint Michael's Medical Center complaining of severe tightness in his chest which caused him to awaken from sleep. For the previous two years the patient occasionally had experienced similar symptoms precipitated by exertion and relieved after five minutes of rest. He did not seek medical advice. Six weeks prior to admission the patient was awakened from sleep in the early morning by more severe chest constriction, that lasted for 15 minutes and then abated spontaneously. He felt well thereafter, continuing his work with only his usual symptoms. Two days prior to admission, while driving to attend the funeral of a close friend he experienced similar symptoms that lasted for about five minutes and disappeared spontaneously. The symptoms recurred for five minutes while walking to the grave site. On the night prior to admission he was awakened with chest discomfort which lasted a half hour and was associated with diaphoresis. He was seen by his physician; an ECG showed a diaphragmatic myocardial infarction of unknown age and non-specific ST-T wave changes in the precordial leads. (Figure 1A) The patient was admitted to the coronary care unit.

He denied shortness of breath, orthopnea, paroxysmal nocturnal dyspnea, or palpitations, previous cardiac disease, diabetes, hypertension, or hyperlipidemia. He was taking no medication. He had smoked thirty cigarettes per day for more than 20 years. Review of systems was otherwise negative and family history was noncontributory.

Physicial examination on admission revealed an obese but muscular male in mild distress. Temperature, 98°; pulse, 66; BP, 155/110; and respirations, 18. Neck veins were flat at 30°. His weight was 230 pounds. The lungs, abdomen, and extremities were negative. The point of maximum cardiac impulse was at the mid-clavicular line in the 5th ICS. The rhythm was regular with a prominent S4. There was no S3 and there were no murmurs.

Admission laboratory data revealed a normal SMA 12. Chest x-ray was normal. The electrocardiogram was striking-

*From the Department of Cardiology, Saint Michael's Medical Center, 268 High Street, Newark 07102. Correspondence may be addressed to Dr. Haft at the hospital.

ly different from that taken in the physician's office shortly before admission. It demonstrated, in addition to Q-waves in Leads II, III, and aVf, loss of R-waves in V1-3, ST segment elevation in V2 and V3, and T-wave inversion in V1-6.

The patient was treated with meperidine hydrochloride (Demerol®) and then with isosorbide dinitrate (Isordil®) and nitroglycerine ointment. The patient's blood pressure came down and his pain abated shortly after admission. Over the following five days the patient had recurrent episodes of chest pain relieved by nitroglycerine. The electrocardiogram showed prominent Q-waves in the anterior precordial leads but the ST segment gradually returned to baseline and the T-wave changes became less pronounced. Repeat enzyme determination over the first three days in the hospital remained within the normal range. They were: LDH: 165, 175, 150; SGOT: 17, 10, 12; CPK: 69, 30, 31, with negative MBII fraction.

Because of the new finding on ECG but normal enzymes, cardiac scanning was performed. Scintographic scan with thallium 201 revealed a filling defect in the antero-lateral area best seen in the PA projection. (Figure 2) A technetium stannous pyrophosphate scan performed a few days later (two weeks after admission) revealed uptake of the isotope in the antero-apical and lateral area. (Figure 3)

The patient continued to have intermittent chest pain throughout his course. On the 20th hospital day coronary arteriography was performed. The right coronary was found to have a 90 percent narrowing in its midportion, the left circumflex had an 85 percent narrowing after the first lateral branch, and the left anterior descending artery had two areas of stenosis, 95 percent just after the origin of the first septal and 90 percent just before the second septal branch. The left ventriculogram showed hypokinesis of the anterior and inferior apical portion of the cardiac silhouette. The left ventricular end-diastolic pressure was 16mm prior to and 34mm Hg after left ventriculography.

Following arteriography the patient's symptoms abated, so he was discharged. His medication included isosorbide dinitrate 15mg four times a day, and nitroglycerine for exertional angina. He was readmitted to the hospital a few weeks later for elective coronary bypass surgery. Admission ECG showed normal R-wave progression across the precordium. (Figure ID) Triple bypass surgery was performed without complications. He was reexamined three months post-operation and was asymptomatic. The R-waves in his precordial leads were present.

SUMMARY

A patient with acute electrocardiographic changes suggestive of an anterior myocardial infarction was found to have normal enzymes, a positive thallium scan, and a positive pyrophosphate scan, three-vessel coronary disease, and mild LV contraction abnormalities. He regained his R-waves a few weeks later, just prior to coronary bypass surgery. The R-waves across the precordium have remained intact following operation.

DISCUSSION

The finding of new Q waves in leads V1 to V3, only a few hours after an electrocardiogram was taken that showed only a diaphragmatic myocardial infarction (MI) and R-waves across the precordium was interpreted to indicate that this patient had suffered an acute MI or an acute extension of a previous MI during the period between the recording of the two ECG's. Normal serial cardiac enzymes, however, called this diagnosis into question. Subsequent reappearance of R-waves in the anterior leads five weeks later further suggested that the Q's were not due to an acute infarction.

There are a number of causes for transient Q-waves in the precordium.[1] The most common is related to lead placement. In this patient great care was taken to ensure that lead placement was constant and in the proper position. Pulmonary embolism will occasionally present with transient Q-waves due to shift in electrical axis but in this patient there was no evidence either of pulmonary embolism or axis shift. Reappearance of R-waves in the precordium occasionally can be seen in a patient with a true posterior infarct that balances the loss of electrical forces from a previous anterior myocardial infarction. In this patient there was no evidence to suggest a further infarct, the patient being clinically stable between ECG's that showed the changes. Moreover, it is unlikely that a true posterior MI would counter-balance so exactly a previous anterior MI as to revert the precordial R-wave pattern precisely to the pattern seen prior to the initial loss of precordial R-waves.

There have been a number of reports of loss of R-waves and/or the development of new Q-waves that fulfill the diagnostic criteria for myocardial infarction, but that are not permanent, reverting to normal after a short period of time. In 1962, Loraux noted that patients with anterior infarction pattern occasionally regain their anterior electrical forces.[2] Lenegre noted the same phenomenon to occur in patients with inferior infarction pattern.[3] Rubin noted the transient occurrence of diagnostic Q-waves during bouts of tachycardia.[4] In a review of the subject in 1964, DePasquale suggested that transient Q-waves during ischemia were due to the development of electrically silent areas because of the failure of ischemic cells to depolarize.[5] He noted the experimental work of Hoffman and Suckling in 1956 that demonstrated that high extracellular potassium levels could depress the action potential of myocardial cells. He postulated that the electrical silence that occurred during ischemia was due to the increase in potassium ion concentration or decrease in sodium ion concentration that can occur in the extracellular fluid in the vicinity of ischemic cells. In addition, anoxia is known to reduce action potential duration and amplitude,[6] while acidosis, which commonly is present during ischemia, has been shown to have a depressing effect on myocardial cell activity. Moreover, Downar has postulated that during ischemia further unidentified factors are released which, he has shown, have potent depressant effects on the excitability even of normal myocardium.[7]

More recently Zeft *et al.* described the reappearance of R-waves and anterior forces on the vectorcardiogram in six patients who underwent aorto-coronary bypass operation to the left anterior descending coronary artery. He further demonstrated that electrically silent areas of the heart may not necessarily be due to cell death.[8] Ischemia sufficient to result in electrically silent areas also would be expected to lead to mechanical quiescence; ischemic myocardial cells lose their ability to contract well before they lose their electrical function.

It also has been suggested that Q-waves may be related to defects in intraventricular conduction with focal blocks due to ischemia in the distal purkinje system leading to a reorientation of the electrical forces. Childers and Gambetta postulated that anterior Q-waves may be due to blockage of distal septal fibers of the left bundle branch.[9] It is possible that all Q-waves, even those documented to be due to transmural replacement of myocardium by scar tissue actually

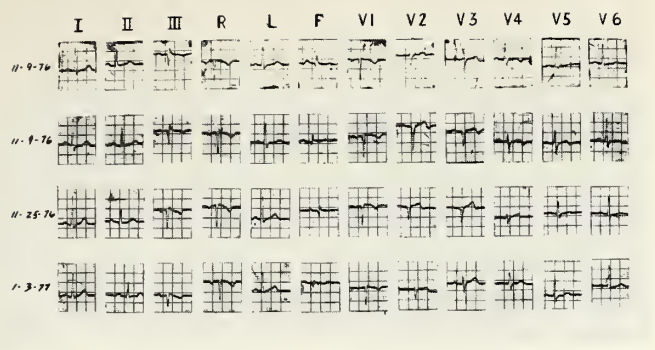


Figure 1—Electrocardiograms taken on day of admission, day of discharge and on readmission for coronary bypass surgery. The second ECG was taken four hours after the first and shows loss of R-waves in V1-3. The R-waves reappear on the fourth ECG taken two months later.

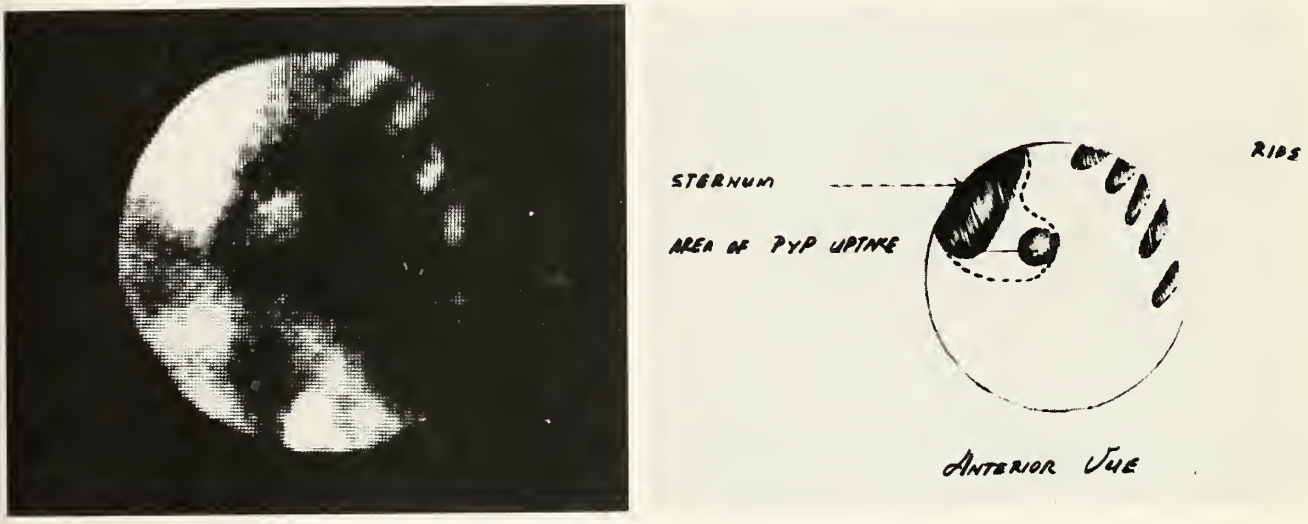


Figure 2—**A and B**—Stannous pyrophosphate myocardial scan. Note the decrease in uptake of radioactivity in the anterolateral area.

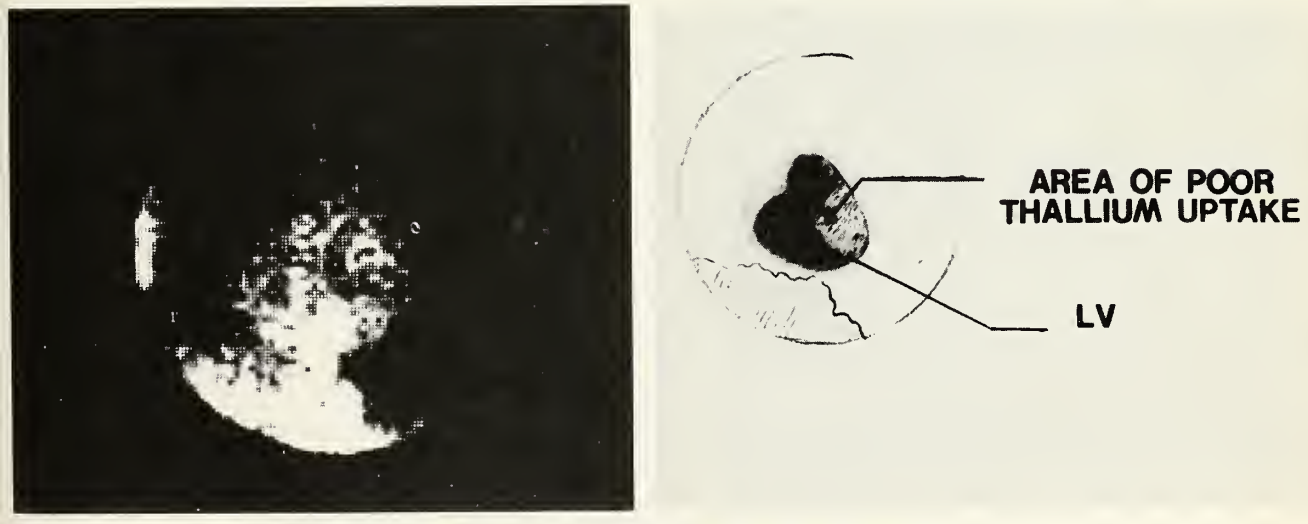


Figure 3—**A and B**—Thallium 201 myocardial scan. Note uptake of radioactivity in the antero-lateral area.

may be due to the disturbance of the cardiac conduction system by the infarction and not to loss of depolarizing muscle. If this is true, initiation of Q-waves without transmural infarction would be expected to be rare (as in this case) because normally the conduction tissue lies subendocardially and may be preserved by nutrition from inside the heart.

The findings on isotope scanning and left ventriculography suggest that the Q-waves noted in this patient were due to severe ischemia of the antero-apical portion of the left ventricle. Thallium is concentrated in areas of normal blood flow and normal myocardial function. The cold areas noted on the thallium scan suggest that blood flow to the anterior area of the left ventricle was compromised significantly. Although this finding is consistent with infarction, it also can be seen in patients with transient ischemia.[10] This may be due to the fact that thallium acts like potassium and moves rapidly only into contracting myocardial cells. During the diastolic period between contractions when the cell reaccumulates potassium, ischemia sufficiently severe to inhibit contraction also would inhibit the uptake of radioactive thallium.

The uptake of pyrophosphate by the area of ischemia initially was interpreted to suggest infarction and irreversible damage to the myocardial cells that took up the radioactivity. In most instances pyrophosphate is seen to concentrate in areas of damaged myocardium. It has been reported, however, that patients with severe ischemia not due to infarction may concentrate this isotope. Wilkerson *et al.* found seven patients with unstable angina to have positive pyrophosphate scans without enzyme or ECG evidence of infarction.[11]

From the sequence of events noted in this patient, i.e., the anterior Q-waves that appeared without enzyme changes, and their reversion before coronary bypass surgery, we feel that the patient did not have a transmural myocardial infarction as suggested by his ECG, but rather that his Q-waves were due to severe reversible myocardial ischemia. The severity of the ischemia necessary to produce Q-waves was demonstrated by the absence of thallium uptake in the area and by the uptake of pyrophosphate on scanning studies, and by akinesis in the anterior area on the left ventriculogram. All of these findings previously have been reported to occur in the presence of severe ischemia even in the absence of irreversible myocardial damage.

The mechanism for the development of Q-waves due to ischemia without infarction remains questionable but, as noted, it may be due to loss of electrical potential of the involved myocardium, abnormality of conduction to and through the ischemic area, or to local electrolyte changes due to interference with the membrane ion pump due to ischemia. Regardless of the exact pathophysiology, this case demonstrates that in the presence of the development of Q-waves in a patient without enzyme changes the diagnosis of irreversible myocardial damage cannot be made with surety.

REFERENCES

1. Haiat R, Chiche P: Transient abnormal Q waves in the course of ischemic heart disease. *Chest* 65:140-144, 1974.
2. Loraux R, Turner J, Himbert J, Lenegre J: Evolution électrique a long terme des infarctus myocardiques anterieurs. *Arch Mal Coeur* 55:736-753, 1962.
3. Lenegre J, Ourbak MP: Evolution électrique a long terme des infarctus myocardiques postérieurs. *Arch Mal Coeur* 57:1393-1408, 1964.
4. Rubin IL, Gross H, Arbeit SR: Transitory abnormal Q waves during bouts of tachycardia. *Am J Cardiol* 11:659-665, 1963.
5. DePasquale NP, Burch GE, Phillips JH: Electrocardiographic alterations associated with electrically "silent" area of myocardium. *Am Heart J* 68:697-709, 1964.
6. McDonald TF, Mac Leon DP: Metabolism and the electrical activity of anoxic ventricular muscle. *J Physiol* (London) 229:559, 1973.
7. Downar E, Janse MJ, Durrer D: The effect of "ischemic" blood on transmembrane potentials of normal procine ventricular myocardium. *Circulation* 55:455-462, 1977.
8. Zeft HJ, Friedberg DH, King JF: Reappearance of anterior QRS forces after coronary bypass surgery. *Am J Cardiol* 36:163-168, 1975.
9. Johnson DW, Gambetta M, Childers RW: Rate dependent right precordial Q waves "septal focal block". *Am J Cardiol* 32: 196-201, 1973.
10. Masseri A, Prodi O, Severi S, Pesola A: Transient transmural reduction of myocardial blood flow demonstrated by thallium 201 scintigraphy as a cause of variant angina. *Circulation* 54:280-288, 1976.
11. Willerson JT, Parkey RW, Bonte FJ, Meyer SL, Atkins JM, Stokley EM: Technetium stannous pyrophosphate myocardial scintigrams in patients with chest pain of varying etiology. *Circulation* 51: 1046-1052, 1975.

Renal Artery Stenosis and Ectopic Kidney Associated with Abdominal Aortic Aneurysm

JOSEPH A. O'DONNELL, M.D.,
BRUCE J. BRENER, M.D.,
DONALD K. BRIEF, M.D.,
JOSEPH ALPERT, M.D.,
VICTOR PARSONNET, M.D., Newark

An abdominal aortic aneurysm associated with a stenotic renal artery supplying an apparent solitary kidney was noted on arteriography. The aneurysm was resected and the renal artery stenosis bypassed. The second kidney, originally thought to be nonfunctioning because of atherosclerotic renal artery occlusion, was located in the pelvis and supplied by an anomalous branch of the common iliac artery.

The use of pre-operative arteriography in patients with abdominal aortic aneurysms has been controversial. The major advantage of its use is the demonstration of the number and location of the renal arteries. In this case renal artery stenosis of a solitary kidney was noted. Nonfunction of the second kidney was assumed to be on the basis of atherosclerotic renal artery occlusion. At surgery, an ectopic kidney supplied by an anomalous branch of the common iliac artery was found. This was overlooked pre-operatively because the arteriogram did not include films of the pelvis.

CASE REPORT

A 66-year-old male, was transferred to Beth Israel Medical Center on March 2, 1976 for resection of an abdominal aortic aneurysm. There was a history of congestive heart failure and hypertension. An abdominal aortogram at another hospital demonstrated an eight cm aneurysm and renal artery stenosis of solitary right kidney. Pelvic arterial anatomy was not delineated in this study (Figure 1). The pre-operative laboratory evaluation was normal with the exception of a blood urea nitrogen of 43 mg/dl and a serum creatinine of 2.4 mg/dl. The electrocardiogram showed evidence of previous myocardial infarction.

At laparotomy, the left kidney was not in its normal location. An aberrant artery was noted originating from the left common iliac artery, supplying a pelvic ectopic kidney. The aneurysm was replaced with a 20 mm knitted velour Dacron bifurcation graft. A six mm knitted-velour Dacron aorto-renal bypass was fashioned end-to-end to the right renal artery beyond the stenosis. The anastomosis of the bifurcation graft to the left common iliac artery was proximal to the aberrant renal artery. (Figure 2)

The patient had an uneventful post-operative recovery without further rise in his serum creatinine or blood urea nitrogen. A post-operative transfemoral aortogram showed excellent perfusion of the normal right and the ectopic left kidney supplied by the aberrant vessel (Figure 3). The patient remains on antihypertensive medication.

COMMENTS

Renal artery anomalies commonly complicate aortic surgery. Several authors have emphasized this fact in their argument for pre-operative aortography for aortic aneurysms [2,5,8,10,11]. In order to avoid injury to the renal blood supply, it is helpful to delineate the vascular anatomy before surgery. Our case supports this position but emphasizes the need for completeness of the angiogram, because the blood supply to the pelvic kidney easily could have been interrupted accidentally.

*From the Division of Vascular Surgery, Newark Beth Israel Medical Center and the Department of Surgery, New Jersey Medical School, CMDNJ, Newark 07112. Correspondence may be addressed to Bruce J. Brener, M.D., Newark Beth Israel Medical Center, 201 Lyons Avenue, Newark, NJ 07112.

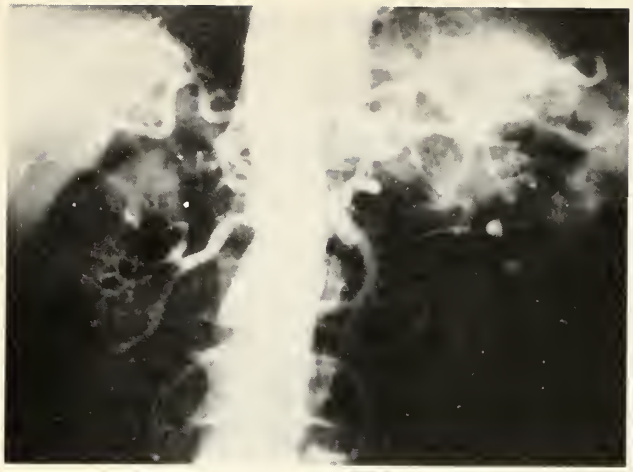


Figure 1 – Pre-operative angiogram showing a large aortic aneurysm and stenosis of the right renal artery. The left kidney is not seen.



Figure 2 – Intra-operative photograph of aorto-iliac and aortic-renal grafts.





Figure 3 – Post-operative aortogram showing the aorto-iliac and aorto-renal bypass (3a) and the ectopic kidney (3b – arrows).

The usual renal anaomalies can be summarized briefly. *Agenesis* of one kidney occurs approximately once in 500 cases[6]. If the remaining kidney is normal, this poses little problem for the surgeon. A kidney may be in an *ectopic location;* and this occurs rarely, approximately once in 800 cases[6]. If not detected during aortic dissection, the blood supply easily may be damaged or the kidney may be mistaken for a tumor[7,11]. Although ectopic kidneys are usually asymptomatic, 50 of 60 described by Bouffioux were noted on arteriography for hypertension[3].

Contralateral fusion, usually resulting in horseshoe kidney, occurs more frequently, about once in 400 cases[6]. The association with aneurysms has been noted[2,7,9]. Here the importance of pre-operative arteriography is obvious.

Variations in the *number of renal arteries* is well known[1,5,8,11]. Brewster *et al.*[5] found the incidence of multiple renal arteries to be 17 percent in their review of aortograms for aneurysms. Likewise, *venous anomalies* may pose a danger during aortic reconstruction[4]. Retroaortic renal veins occur in as many as two percent of patients undergoing surgery.

Finally, *renal artery stenosis* may be detected during aortography for aneurysms. Brewster, *et al.*[5] found that 22 percent of patients undergroing aortography for aneurysms had

renal artery stenosis. Preservation of renal blood supply under these circumstances is mandatory and may necessitate arterial repair. This condition undoubtedly would be missed during most aortic resections without previous angiography.

In our patient aortography was incomplete. The aneurysm and renal artery stenosis were demonstrated but pelvic views were not obtained. This led to the erroneous conclusion that the left renal artery was occluded. Fortunately, at surgery the aberrant renal artery from the left common iliac was discovered and preserved. The case demonstrates the value of preoperative arteriography, and emphasizes the need for obtaining a complete survey of the intra-abdominal vasculature.

REFERENCES

1. Anson BJ, Daseler EH: Common variations in renal anatomy affecting blood supply, form, and topography. *Surg Gynecol Obstet* 113:439-449, 1961.
2. Bietz DS, Merendio LA: Abdominal aneurysm and horseshoe kidney: A review. *Ann Surg* 181:333-341, 1975.
3. Bouffioux CH, Leval J: Diagnosis and errors in diagnosis of pelvic ectopic kidneys. *Acta Urologica Belgica* 42:363-666, 1974.
4. Brener BJ, Darling RC, Fredicks P, Linton RR: Venous anomalies complicating abdominal aortic surgery. *Arch Surg* 108:159-165, 1974.
5. Brewster DC, Ratana A, Waltman HD, Darling RC: Angiography in the management of aneurysms of the abdominal aorta. *N Engl J Med* 292:822-825, 1975.
6. Campbell MF: Anomalies of the kidney. In: *Urology*. Campbell MF, Harrison JH, editors: Philadelphia, Saunders, 1970, p. 1416-1486.
7. Hardy JD, Timmons HT: Abdominal aortic aneurysms: Special problems. *Ann Surg* 173:945-962, 1971.
8. Robicsek F, Daugherty HK, Mullen DC, Tam W, Scott WP: The value of angiography in the diagnosis of unruptured aneurysms of the abdominal aorta. *Ann Thorac Surg* 11:538-550, 1971.
9. Soriano J, Alpert J, Parsonnet V, Brief DK, Brener BJ: Abdominal aortic aneurysm and the horseshoc kidney. *J Med Soc NJ* 73:584-588, 1976.
10. Szilagyi DE, Smith RF, Macksood AJ, Eyler WR: Abdominal aortography: Its value and its hazards. *Arch Surg* 85:25-40, 1962.
11. Szilagyi DE, Smith RJ, Whitcomb JG: The kidneys in surgery of the abdominal aorta. *Arch Surg* 79:252-261, 1959

SPECIAL ARTICLE

Doctors and Robert Louis Stevenson

MANUEL J. ROWEN, M.D., Elizabeth

"There are men and classes of men that stand above the common herd; the soldier, the sailor and the shepherd not infrequently; the artist rarely, rarelier still, the clergyman; the physician almost as a rule. He is the flower of our civilisation."[1]

The above statement can be found in the dedication of a book of poems, *Underwoods*, written by Robert Louis Stevenson in 1884 to glorify Dr. Thomas Bradley of Bournemouth and many other doctors who had treated the author over the years.

Robert Louis Stevenson, the most prolific English prose author of the late 19th century, born in Edinburgh, Scotland, wrote adventure stories that have been read by almost every redblooded adolescent from then until now. Some of his better known works such as *Treasure Island, Kidnapped, Black Arrow* and *Dr. Jekyll and Mr. Hyde* have been adapted for radio, television, and movies. Is there a boy, now a man, who has not thrilled to the fantastic derring-do of the young male protagonists as they battle pirates, villains, and tyrants, yet remain always victorious, virtuous, and just.

The large body of literary works written by Robert Louis Stevenson is all the more incredulous because the author was a scrawny, esthetic, chronically ill person who achieved in spite of the burden of his health. Born in the harsh cold blustery climate of Scotland, he suffered attacks of chills, fever, cough, weakness, and malaise, which recurred with erratic regularity throughout his life. With this type of medical background it followed that he knew doctors, many of them, from a very early age.

His intimate knowledge of doctors finds its way into many of his novels as well as more serious non-fictional works and letters to friends. Apparently he had chronic lung disease, probably pulmonary tuberculosis which would account for his weakness, fevers, cough, and frequent lung hemorrhages which laid him low. At first he went to the popular resorts in Switzerland that were recommended for the treatment of these pulmonary complaints but found the cold weather aggravating rather than soothing. Later in life, he even went to California, Monterey Peninsula, where the fogs and mist, although beautiful to behold, further aggravated his complaints. Eventually, near the end of his short life (he died at 45 years) he sailed to and lived in the South Seas, Valima in Samoa, where his strength and health improved remarkably until his sudden death. On December 3, 1895, while gaily talking to his wife, he put both hands to his head, and cried out, "What's that? Do I look strange?" As he talked, he fell to the floor, lost consciousness, breathed heavily, and died shortly afterward even though doctors were summoned and were present but helpless. Apparently, he died from a cerebral hemorrhage although no distinct diagnosis was noted in his biography.[2]

He spent a great deal of time with doctors for medical as well as social purposes. His life frequently depended for comfort and support on physicians who treated him not always successfully because therapy for his illness was less than ideal, sometimes steeped in ritualistic nonsense. Patients with all types of chest complaints crowded the spas in Europe seeking relief in treatment that we know now was frequently fruitless or futile. This scene of people sick and dying must have colored his thinking relative to the medical profession.

Many so exposed develop a tough hide thickened by cynicism and are resentful and frustrated, but such was not the case of Robert Louis Stevenson.

His love and respect for doctors can be found in many of his fictional works where his feelings are incorporated in the descriptions and development of the characters. One of his most popular books, which he wrote to please his stepson, Lloyd Osborne, pictures Dr. Livesey as one of the main protagonists who accompanies the hero, Jim Hawkins, on the Hispaniola to "Treasure Island." This doctor appears to be a conservative, careful, righteous man, interested in his patients even when under fire, thoughtful but active. In this scene, he administers to the medical needs of the enemy pirates even though he must make a housecall into their fortress.[3]

"The doctor stopped outright, although he did not speak, and it was some seconds before he seemed able to move on.

" 'Well, well,' he said, at last, 'duty first and pleasure afterwards, as you might have said yourself, Silver. Let us overhaul these patients of yours.'

"A moment afterwards he had entered the block-house, and, with one grim nod to me, proceeded with his work among the sick. He seemed under no apprehension, though he must have known that his life among these treacherous demons depended on a hair; and he rattled on to his patients as if he were paying an ordinary professional visit in a quiet English family. His manner, I suppose, reacted on the men; for they behaved to him as if nothing had occurred—as if he were still ship's doctor, and they still faithful hands before the mast."

He admonishes and advises these bloodthirsty blackguards to eat properly, drink less brandy, redress their wounds, and avoid those low, swampy places that give one miasma fever. He even turns his back on those villains in order better to attend to one of their wounded, an act of courageous heroism.[4]

" 'Well, George, how goes it? You're a pretty colour, certainly; why, your liver, man, is upside down. Did you take that medicine? Did he take that medicine, men?'

" 'Ay, ay, sir, he took it, sure enough,' returned Morgan.

" 'Because, you see, since I am mutineers' doctor, or prison doctor, as I prefer to call it,' says Doctor Livesey, in his pleasantest way, 'I make it a point of honour not to lose a man for King George (God bless him!) and the gallows.'

"The rogues looked at each other, but swallowed the homethrust in silence.

" 'Dick don't feel well, sir,' said one.

" 'Don't he?' replied the doctor. 'Well, step up here, Dick, and let me see your tongue. No, I should be surprised if he did! the man's tongue is fit to frighten the French. Another fever.' "

One can appreciate the feeling of Robert Louis Stevenson toward doctors from his treatment of this fictional character.

Dr. Jekyll and Mr. Hyde, published in 1885, an outstanding book written on many levels, presents allegory of good versus evil, right against wrong, and civilized man battling his baser instincts. Dr. Henry Jekyll, the cultured, bachelor physician, appears as a pleasant philanthropic, kind character who, while engaged in thoughtful scientific research, discovers the secret formula which he drinks to transform him into Mr. Hyde. The aforementioned doctor was handsome, industrious, respectful, honorable, and distinguished.[5]

"I was born in the year 18__ to a large fortune, endowed besides with excellent parts, inclined by nature to industry, fond of the respect of the wise and good among my fellow-men, and thus, as might have been supposed, with every guarantee of an honourable and distinguished future. And indeed, the worse of my faults was a certain impatient gaiety of disposition, such as has made the happiness of many, but such as I found it hard to reconcile with my imperious desire to carry my head high, and wear a more than commonly grave countenance before the public. Hence it came about that I concealed my pleasures; and that when I reached years of reflection, and began to look round me, and take stock of my . . . . ."

These qualities would enhance even the image of a saint but evidently Robert Louis Stevenson had such feelings.

Other examples of his appreciation of doctors can be found in other literary works but none as outspoken as the paragraph in the dedication of *Underwoods*.[6]

"He is the flower (such as it is) of our civilisation; and when that stage of man is done with, and only remembered to be marvelled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race. Generosity he has, such as is possible to those who practise an art, never to those who drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments; and what are more important, Heraclean cheerfulness and courage. So it is that he brings air and cheer into the sickroom and often enough, though not so often as he wishes, brings healing."

The public image of the physician as well as the doctor's self-image are in a state of flux drifting from adoration to revulsion. Malpractice suits and medical fraud chip away at this image while death-defying surgery or Salk vaccine miracles enhance the picture. Various polls conducted nationally to appraise the attitude toward doctors usually place them at the top of the ratings regarding honesty, ethics, and moral standards. Some of the close competition in this type of popularity are ministers and college professors but they never are close. This treatise on Robert Louis Stevenson also lends support to the aura of respect that people hold for doctors.

CONCLUSIONS

Robert Louis Stevenson, one of the greatest authors of English prose, suffered from chronic lung disease all of his short life but during that time he developed a great love and respect for physicians who treated him all too often. This article shows examples of his feelings for doctors that should help buttress the public image and doctor self-image which so frequently are abused.

REFERENCES

1. Stevenson RL: *Underwoods.* Chatto & Windus, London, 1920 p.v.
2. Furnas JC: *Voyage to Windward.* Sloan, New York, 1951.
3. Stevenson RL: *Treasure Island.* Cassell and Company, Ltd., London, 1921, p. 229.
4. Stevenson RL: *Treasure Island.* Cassell and Company, Ltd., London, 1920, p. 230.
5. Stevenson RL: *Dr. Jekyll and Mr. Hyde.* Longmans, Green and Company, London, 1920.
6. Stevenson RL: *Underwoods.* Chatto & Windus, London, 1920, p. v.

The Cholesterol Controversy

MARGARET A. FLYNN, Ph.D., Columbia, Mo.*

DIET-HEART CONTROVERSY

The word "cholesterol" connotes an undesirable, "stay away from me" image in the minds of many persons dating back to the revelation that cholesterol was present in human atheromatous plaques. Both the American Heart Association and the American food industry have fostered the idea that dietary cholesterol holds an imminent role in the cause, control, and prevention of atherosclerotic lesions. Circulating amounts of total cholesterol in plasma and/or the levels of the lipoproteins, which transport the cholesterol, and lipids have become key determinants for treatment or non-treatment of coronary artery disease in man. The predominant dietary treatment for hypercholesterolemia has been the removal of dietary cholesterol and saturated fatty acids and the addition of polyunsaturated fatty acids. However, the extrapolation of treatment to prevention of heart disease creates a controversy. E.H. Ahrens, Jr., one of the early proponents of the diet-heart hypothesis recently admitted that: "It is not proved that dietary modification can prevent arteriosclerotic heart disease in man."[1] Mann, a critic of the diet-heart theory of cardiovascular disease, has observed that a generation of research on this question has ended in disarray.[2] Kaunitz has stated that the period may be coming to a close in which arteriosclerosis research is dominated by controversy over dietary fat.[3]

The cholesterol controversy centers around the concept that cholesterol has a causal relationship with heart disease. What cholesterol is, what it does, and where it comes from are relevant issues in this argument. Cholesterol and its esters, along with triglycerides, phospholipids and free fatty acids, compose the main plasma lipids. Cholesterol is a complex fat produced by animal tissues, a necessary part of the structure of cell membranes in the body and the base for the body's synthesis of sex and adrenal hormones as well as for vitamin D. Kaunitz suggests cholesterol has a role in repair processes.[3] Most of man's cholesterol is made in the body rather than derived from dietary cholesterol.[4] An overabundance of plasma cholesterol could arise from overproduction but it could also be due to failure to excrete the metabolic by-products of cholesterol. Cholesterol finds its main route of disposition as bile acids and their salts.[5] The salts are excreted into the intestines in the bile, where they are temporarily stored in the gallbladder, released to act as excellent detergents in emulsifying diet fat, increasing the fat particle surface and thus allowing the hydrolyzing enzyme, lipase, to change the fat into small enough particles to pass through the intestinal mucosal cell. Without bile, fat-soluble vitamins or fats are not absorbed well, thus allowing non-absorbable soaps to form with the dietary calcium and other minerals. Hence, cholesterol has a basic function in its conversion to bile salts: the absorption of fat, vitamins, and minerals.

CHOLESTEROL BALANCE

In an excellent review of the homeostasis of plasma cholesterol, Sodhi and Mason state that one of the assumptions made by investigators has been that plasma and total body cholesterol equilibrate between one another in any mass changes in body cholesterol but that no one systematically and directly has tested this assumption.[6] Blood and tissue levels of cholesterol are derived from a balance between dietary input and body synthesis vs. excretion of neutral steroids (cholesterol and its metabolic products) and oxidation of bile acids. This concept gives rise to identification of methods to control the size of the body's cholesterol. Plasma (or serum) cholesterol is the only "pool" of the total body cholesterol that has been incriminated in coronary artery disease.[6] In a study of four independent methods for measuring intestinal absorption of cholesterol, Quintao, *et al.* found a great deal of individual variation as to whether dietary cholesterol has an effect on total body cholesterol.[7] Several recent publications cite evidence of marked variation in plasma cholesterol response to food cholesterol challenges in man.[8-10] In each of these studies, increasing dietary egg cholesterol did not increase significantly the plasma or serum cholesterol in the great majority of the men.

CHOLESTEROL SYNTHESIS

The building block of cholesterol synthesis within the body comes from acetate, a common end product of the metabolism of protein, carbohydrate, and fat, the major energy sources in man's diet. Acetate also is used for synthesis of fatty acids, which may become body fat. Excess of protein, carbohydrate and fat ingestion would increase the acetate pool and could lead to obesity. Most animals control cholesterol synthesis by cholesterol itself; this control

*Reprinted with permission of *Contemporary Nutrition* 3:3 (March) 1978, a newsletter from the Nutrition Department of General Mills, Inc., Minneapolis. Dr. Flynn is with the Department of Family and Community Medicine/Nutrition, University of Missouri, Columbia, Missouri.

yet is not proved in man. Miettinen, using sterol balance methods, has shown that obese subjects produce 20 percent more cholesterol per unit of body weight than normal subjects.[11] This hints that excess intake of energy is involved in cholesterol metabolism.

TRANSPORT OF CHOLESTEROL

Since lipids are not water soluble, they are transported in plasma in the form of lipoproteins; cholesterol is an integral part of lipoproteins. Ultracentrifugation and electrophoresis differentiate and quantify major classes of lipoproteins in order of increasing density, protein and phospholipid concentration and decreasing triglyceride concentration as chylomicrons, very low density lipoproteins (VLDL), intermediate density lipoproteins (IDL), low density lipoproteins (LDL) and high density lipoproteins (HDL). In 1967, Frederickson *et al.* advocated and received immediate acceptance for phenotyping of lipoproteins by electrophoresis and/or ultracentrifugation and prescribed dietary control according to type.[12] The chylomicrons originate from dietary fat, are formed in the intestinal mucosa, are large in size, have the lowest density and are rich in triglycerides. The VLDL are partially degraded chylomicrons: they also are synthesized in the liver from free fatty acids, carbohydrates, and alcohol. The IDL are formed from VLDL by lipoprotein lipase and finally are converted to LDL by the liver. The LDL secreted by the liver are carriers of plasma cholesterol and are degraded by peripheral tissues. The cholesterol derived can be used locally for synthetic aims or can be returned to the liver. The LDL are reported to have higher correlation with atherogenicity. Plasma of fasting individuals circulate HDL, which contain about 20 percent of total plasma cholesterol and which may function as carriers of degraded LDL in peripheral tissues en route back to the liver.[13] No one can be certain that the cholesterol-protein complexes are transport mechanisms until pure lipoproteins are isolated. An inverse relationship between level of plasma HDL and atherosclerosis has been reported in several studies. In 1977 and at this time, assessment of HDL appears to be the favored diagnostic test for coronary disease.[13-15] Not everyone believes that atherosclerosis is caused by fat.[2,3] Several hypotheses to explain the pathogenesis of atherosclerosis have been proposed: lipid, hemodynamics, myogenic, mutagenic, and thrombogenic.[16,17]

DIETARY CHOLESTEROL RESTRICTIONS

Controversy abounds in the treatment of atherosclerosis by diets and/or drugs. Kolata questions whether benefits from clinical trials in cardiovascular medicine are worth the cost.[18] Scheidt replies that they are.[19] Mann cites the failure in the past to elongate life by curtailing dietary cholesterol and by lowering elevated plasma cholesterol and triglycerides with use of drugs.[2]

Further "muddying of waters" has arisen with the controversy over whether the federal government has sufficient scientific data to support the recommendations for the radical change in diets of all Americans, which have been made by the Select Committee on Nutrition and Human Needs of the U.S. Senate. Olson believes their six recommendations for dietary goals, including reduction of dietary cholesterol to 300 mg daily, the decrease of total fat, and increased polyunsaturated fatty acids in the diets, are edging toward therapeutic diets for everyone during the life cycle and are not warranted for infants, children, adolescents, pregnant women, and the aged.[20] Studies of Slater *et al.*,[8] Porter *et al.*,[9] Kummerow *et al.*,[10] and Flynn *et al.*[21] have documented that consumption of egg cholesterol in regular meals does not increase significantly plasma or serum cholesterol in males, who genetically are able to process body cholesterol.

Corday and Corday summarized the results of attempts to date to prevent and control developing arteriosclerosis and suggested an urgent need for new fundamental research and reappraisal of diet-drug-exercise-smoking-obesity-diabetes vs. "heart."[22] Bilheimer called for a new therapy for hypercholesterolemia.[23]

The cholesterol controversy plays a unique role in stimulating research and discussions in a wide variety of disciplines and probably will continue to do so for a long while.

REFERENCES

1. Ahrens EH Jr: The management of hyperlipidemias: Whether, rather than how. *Ann Intern Med* 85:87, 1976.
2. Mann GV: Medical intelligence: Current concepts: Diet-heart: End of an era. *N Engl J Med* 297:644, 1977.
3. Kaunitz H: Dietary lipids and arteriosclerosis. *J Am Chem* 52: 293, 1975.
4. Naber E: The cholesterol problem, the egg and lipid metabolism in the laying hen. *Poult Sci* 55:14, 1976.
5. Myant NB, Mitropoulos KA: Cholesterol 7 alpha hydroxylase. *J Lipid Res* 18:135, 1977.
6. Sodhi H, Mason D: New insights into the homeostasis of plasma cholesterol. *Am J Med* 63:325, 1977.
7. Quintao E, *et al:* Effects of dietary cholesterol on the regulation of total body cholesterol in man. *J Lipid Res* 12:233, 1971.
8. Slater G, *et al:* Plasma cholesterol and triglycerides in men with added eggs in diet. *Nutr Rep Int* 14:249, 1976.
9. Porter M, *et al:* Effects of dietary egg on serum cholesterol and triglyceride in human males. *Am J Clin Nutr* 30:490, 1976.
10. Kummerow FA, *et al:* Influence of egg consumption on the serum cholesterol level in human subjects. *Am J Clin Nutr* 30:664, 1977.
11. Miettinen TA: Cholesterol production in obesity. *Circulation* 44:842, 1971.
12. Fredrickson D, *et al:* Fat transport in lipoproteins—An integrated approach to mechanisms and disorders. *N Engl J Med* 276:34, 94, 148, 215, 273, 1967.
13. Miller NE, *et al:* The Tromso heart study: High density lipoprotein and coronary heart disease; A prospective case-control study. *Lancet* 1:965, 1977.
14. Castelli WP, *et al:* HDL cholesterol and other lipids in coronary heart disease. *Circulation* 55:767, 1977.
15. Gordon T, *et al:* High density lipoprotein as a protective factor against coronary heart disease. *Am J Med* 62:707, 1977.
16. Roberts WC: Fat versus fatigue: Comments on causes of atherosclerosis. *Cardiovas Med* 2:593, 1977.
17. Stehbens WE: Fatigue versus fat: A rejoiner. *Cardiovasc Med* 2:595, 1977.
18. Kolata GB: Clinical trials in cardiovascular medicine: Are the benefits worth the cost? *Cardiovasc Med* 2:687, 1977.
19. Scheidt SS: The benefits of clinical trials are worth the cost. *Cardiovasc Med* 2:689, 1977.
20. Olson R: Responses to Dietary Goals-Eggs. In: *AIN Nutrition Notes* 13:1, 1977.
21. Flynn MA, *et al:* Effect of egg cholesterol on serum cholesterol. Submitted to *Am J Clin Nutr,* 1978.
22. Corday E, Corday SR: Risk factors in arteriosclerosis: Are we being complacent? *Primary Cardiol* Oct. 1977: p. 5.
23. Bilheimer DW: Needed: New therapy in hypercholesterolemia. *N Engl J Med* 296:508, 1977.

Trustees' Minutes April 16, 1978

A regular meeting of the Board of Trustees was held on Sunday, April 16, 1978, at the Executive Offices in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

Blue Shield Use of Uniform Report Form . . . Noted that Blue Shield's problem with changeover to the AMA uniform report form is one of personnel and it was suggested that Blue Shield be afforded a one-year time period to adapt to the new form.

Conference of Presidents . . . Noted that the Spring Conference of Presidents was well attended and that the specialty groups are responding to the new format.

Clinical Laboratories – Certificate of Need . . Noted that at a public hearing to be announced by the Department of Health Mr. Maressa will supply the legal arguments regarding the Department of Health's proposed regulation on certificate of need jurisdiction relating to clinical laboratories, and the New Jersey Society of Pathologists will supply the technical arguments. The assistance of the New Jersey Hospital Association also is being sought.

Board of Medical Examiners Proposed Regulations . . . Noted comments by Mr. Maressa concerning items 1 and 2, and directed that item 3 be referred to the State Board of Medical Examiners with a request for clarification of an apparent inconsistency.

1. **Proposed Amendments on Prohibition of Kickbacks or Payment for Services Not Rendered** (N.J.A.C. 13:35-6.11(a)1.)

This rule merely would codify existing law concerning fraud. Mr. Maressa will address the question as to whether this applies to discounts or rebates on, for example, laboratory services.

2. **Proposed Amendment of Rule on Termination of Pregnancy (N.J.A.C. 13:35-7.2)**

The changes in this rule were necessitated by judicial decision and a mandated public hearing.

3. **Proposed Rules on Principal Midwife (N.J.A.C. 13:35-9.1-7)**

The proposal is similar but more restrictive than that approved by the Committee on Maternal and Infant Welfare (by a vote of 6 to 2) and appears to be in major conformity with the opinions of the New Jersey Obstetrical and Gynecological Society. The Board noted the following inconsistency:

13:35-9.6(a) "Anesthesia, such as but not limited to local, regional, epidural or spinal, shall be administered only by a licensed physician."

13:35-9.6(c) "Under the physician's direction, the principal midwife may manage the care of the normal pregnant woman as follows: " . . .

"(3) Order analgesia only after consultation with and at the specific direction of the physician."

Hospital Service Plan Disputed Claims . . . Received a report from Mr. Maressa of a meeting with representatives of the New Jersey Hospital Association and New Jersey Blue Cross concerning the increasing number of complaints about claims disallowed by Hospital Service Plan. The following possible solutions were considered:

(a) referral to the PSROs for determination
(b) referral to NJHCE for determination
(c) restructuring of the current MSNJ-appointed, five-member committee, and providing for the addition of a given specialist to address the case being reviewed.

Representatives of HSP and MSP will discuss the matter and report to the Quadripartite Committee Organizations.

Legislation . . . Approved the Council on Legislation's position on bills of medical import, with the exception noted.

S-231 Scardino – Mental Treatment Standards Committee and Patient Treatment Review Board

The proposed committee will consist of 7 New Jersey residents, one psychiatric social worker, two psychiatrists, one psychiatric nurse, the Director of the Division of Mental Health and Hospitals, one administrator of a community mental health facility, and one licensed psychologist.

The Committee shall prepare a recommended "Manual of Adequate Standards for Treatment of the Mentally Ill in State Mental Institutions." The standards recommended by the Committee shall be expressed in as objective terms as possible.

This has also created a Patient Treatment Review Board, consisting of one psychiatrist, one non-psychiatrist M.D., one licensed psychologist, one psychiatric R.N., and one licensed attorney. The board shall review patient complaints and recommend such action as may be necessary to compel adequate treatment. **ACTIVE OPPOSITION,** because the Director of the Division of Mental Health and Hospitals should not be a member of the Mental Treatment Standards Committee. Funds are not specified to implement the program. Arbitrary decisions are allowed and the Committee has no way to enforce its own recommendations. Above all, it should be noted that adequate review mechanisms already exist and function well.

S-244 Scardino – Abortion

Prohibits the intrauterine injection of a hypertonic solution except where the physician has made a judgment that any other method imposes an unreasonable danger to the life of the woman. (Penalty – misdemeanor) **ACTIVE OPPOSITION,** because this bill legislates the practice of medicine.

S-279 Ewing – Ancillary Services

Authorizes the physician to delegate performance of limited procedures (unspecified) to certified technical aides. **ACTIVE OPPOSITION,** because the Society is opposed to the legislative recognition of any further ancillary personnel. It believes that current personnel, *i.e.,* professional nurses could be better employed to perform the technical procedures indicated.

Note: The Board changed the Council's position from active support to active opposition for the reasons given. . . . Directed the Council on Legislation to refer to a similar bill introduced some ten or twelve years ago (which was supported by the Society) with respect to its applicability today.

. . . Noted that the following bills pertain to ancillary personnel:

S-279 – Ewing – Ancillary Services

A-83 – Deverin – Occupational Therapy Licensing Act

A-84 – Deverin – Respiratory Therapist Act

. . . Directed that the matter of ancillary personnel be referred to the Council on Legislation for the purpose of developing a policy statement. (Chairman of the Council invited members of the Board to submit comments on the issue.)

S-290 Ewing – Sex Education

Requires local boards of education to conduct an annual review of all sex education courses within their jurisdiction to consider amendments thereto. Would permit sex education as a non-coeducational course. **NO ACTION**

S-367 Zane – Guaranteed Medical Education Loan Program

Makes loan monies available to medical students. Those practicing in areas of designated shortage will be entitled to a credit reduction of 20% for each year of such service. **ACTIVE SUPPORT**

S-473 Maressa – Transfer of Inmates

Inmates of correctional facilities are not to be transferred to state mental health facilities unless a licensed psychiatrist has examined the individual and approved the transfer. **ACTION DEFERRED,** pending further information from the Council on Mental Health.

S-486 Maressa – Vision Examinations

Amends existing law to provide that in addition to optometrists and ophthalmologists any licensed physician may conduct the required vision examination. **APPROVED**

S-515 Feldman – Creates a Mental Health Study Commission

The 34-member commission is to recommend to the Governor a comprehensive plan for delivering mental health services in New Jersey.

Composition

Commissioner of Human Resources
Director of Mental Health and Hospitals
President of New Jersey Association for Mental Health
6 members of the New Jersey Association for Mental Health
Chairman of the Community Mental Health Board
Chairmen of Boards of Trustees of Ancora, Greystone, Marlboro, Trenton, Skillman, Brisbane and Menlo Park
President of the New Jersey Psychiatric Association
2 Senators
2 Assemblymen
4 Social Workers
2 members of the CMDNJ Department of Psychiatry
3 Community Mental Health Center Directors
3 citizens at large

ACTION DEFERRED, pending further information from the Council on Mental Health.

S-517 Feldman – Psychology Licensing Act

Current law permits the licensing of psychologists who have a doctoral degree in psychology or in the opinion of the licensing board "a closely allied field."

This would amend that section to state that the degree of Doctor of Philosophy in psychology, the degree of Doctor of Education in psychology, or the degree of Doctor of Psychology are all equivalents.

Also permits the licensing board to require continuing education for relicensure. **ACTION DEFERRED,** pending further information from the Council on Mental Health.

S-667 Lipman, Merlino – Health Insurance

Would make it unlawful for health insurers to refuse to issue policies solely because the prospective insured suffers from Sickle Cell Trait, Hemoglobin C Trait, Cooley's Anemia, Cystic Fibrosis, or Tay-Sachs Disease. **NO ACTION**

S-668 Lipman, Merlino – Life Insurance

Same as **S-667** except it applies to "life insurers." **NO ACTION**

S-669 Lipman, Merlino – Employment

Would make it illegal to refuse to hire persons solely because they suffer from Sickle Cell Trait, Hemoglobin C Trait, Cooley's Anemia, Cystic Fibrosis, or Tay-Sachs Disease. **NO ACTION**

S-679 Lipman – Minor's Consent to Treatment

Amends existing law to allow minors who have been sexually assaulted (in the judgment of a treating physician) to consent to medical and surgical treatment. **APPROVED**

S-692 Skevin – Controlled Dangerous Substances

Provides that in order to control unauthorized prescriptions all prescriptions for controlled dangerous substances must be written on distinctive paper "serially numbered for each prescriber." Such prescription blanks shall not be transferable. **DISAPPROVED,** because this bill is impractical and impossible of implementation.

S-700 Skevin – Cancer Reporting

Makes cancer a reportable disease to the State Department of Health in order to collect adequate statistical data to develop an effective prevention program. **NO ACTION** (This bill is already current law)

S-703 Skevin – Radiology Services

Permits radiologists to bill patients for x-ray interpretations for amounts that are not covered under the person's hospital service contract. **ACTION DEFERRED,** pending further information from the Radiological Society of New Jersey.

S-710 Skevin, et al. – Cancer Detection

Creates within the Department of Health a cancer detection program to include detection and treatment clinics, research, and training programs in cancer detection. **CONDITIONAL APPROVAL,** provided the bill is amended to provide subsidization to existing detection, diagnostic and treatment facilities rather than to have the State unnecessarily and at great expense create and duplicate current programs.

S-723 Zane – Civil Immunity

Provides immunity from civil suit for the Medical Vision Advisory Panel and persons providing reports and recommendations with respect to a licensee's ability safely to operate a motor vehicle. **APPROVED**

S-735 Russo – Certificate of Need Exemption

Exempts non-profit entities from Certificate of Need requirements when (a) land acquisition predated the law and (b) the land is located within a municipality which appropriated funds for the construction of the facility. **NO ACTION**

SJR-3 Vreeland – Motor Vehicles

Requests the Division of Motor Vehicles to place a Uniform Anatomical Gift Act Clause on driver license forms. **APPROVED**

A-32 Burgio – Physician Shortage Act

Provides 25 scholarships annually on a competitive basis to students studying medicine who agree that upon completion of training they will practice in an area in New Jersey designated as having a physician shortage. (Each recipient is entitled to $5,000 a year for not more than four academic years.) **APPROVED**

A-65 Codey, et al. – Tay-Sachs Disease

Authorizes counties wherein there is no county home or hospital suitable for children afflicted with Tay-Sachs Disease to appropriate $5,000 per year for expenses incident to the diagnosis and treatment of those children residing in that county. **APPROVED**

A-76 Deverin, et al. – Medicaid

Expands Medicaid coverage to medically needy persons who are ineligible under the current law because their incomes are too high. **APPROVED**

A-78 Deverin, et al. – Local Health Services

Provides that municipalities may avoid implementation of the Local Health Services Act whenever State Health Aid is unavailable to local agencies via the State Department of Health. **APPROVED**

A-83 Deverin – Occupational Therapy Licensing Act

Creates a new class of licensed practitioners who would function independently and would be permitted to perform such services as the design, fabrication, and application of splints; sensorimotor activities; the use of specifically designed crafts, guidance in the selection and use of adaptive equipment, therapeutic activities to enhance functional performance; prevocational evaluation and training; and consultation concerning the adoption of physical environments for the handicapped. The State Board of Medical Examiners will exercise jurisdiction. **DISAPPROVED,** because this bill lacks the proper physician direction.

A-84 Deverin – Respiratory Therapist Act

Provides for the licensing and regulation of respiratory therapists and technicians under the auspices of the State Board of Medical Examiners. Provision of services other than under the direction or supervision of a physician shall be cause for revocation of licensure. **APPROVED**

A-115 Contillo, et al. – Cigarette Tax Act

The tax proceeds (.01¢ per pack) would be used to finance cancer research, diagnosis, and treatment in New Jersey. **APPROVED**

A-136 Gallo – Automobile Reparation Reform Act

Raises current ceilings under the bodily injury portion of the no-fault law. Places a limit on medical expense coverage to an aggregate of $50,000. The Commissioner of Insurance is authorized to promulgate a schedule of the types of treatment and reasonable fees for medical services for the most common form of injuries arising out of motor vehicle accidents. In this regard, the Commissioner is to be assisted by a panel of medical, legal, and insurance experts appointed by him. **ACTIVE OPPOSITION,** because there are existing organizations in New Jersey that can promulgate a schedule for the types

of treatment as called for in the bill, i.e., PSRO's and the New Jersey Foundation for Health Care Evaluation.

A-161 Karcher – Revocation of Medical Licenses

Provides for the mandatory revocation of licenses to practice whenever the licensee has violated Federal or State narcotic drug laws. **ACTIVE OPPOSITION,** because many violations are technical in nature and do not warrant revocation of a license, but a lesser penalty. Current law grants the State Board of Medical Examiners to impose a suspension or revocation according to the gravity of the offense and is preferable to this bill.

A-199 Visotcky – X-Ray Technicians

Makes it a misdemeanor to knowingly employ an x-ray technician who does not possess a valid registration certificate. **APPROVED**

A-202 Visotcky – Non-Voluntary Mental Health Admissions Related to Drugs

Current law provides for reimbursement to hospitals for 15-day involuntary commitments. This would recognize reimbursement under the 7-day commitment statute. **APPROVED**

A-204 Visotcky – Microwave Ovens

Mandates public facilities to post a notice alerting persons having pacemakers to the proximate use of microwave ovens. **APPROVED**

A-205 Visotcky – Prescriptions

Requires the prescriber to indicate to the pharmacist whether or not the label shall include the name and nature of the drug. **APPROVED**

A-254 Martin – Scoliosis

Mandates school boards to conduct annual examinations of pupils to detect scoliosis. **APPROVED**

. . . Approved a recommendation from the Council on Legislation that the following bills be "noted and filed" as not being of intimate concern at this time.

S-503 Greenberg – Controlled Dangerous Substances

Amends existing statutes to indicate that an ounce equals 28.35 grams.

SCR-28 Hagedorn – Medicaid Study Commission

This 12-person commission is to study the Medicaid Program and to evaluate the feasibility of alternate methods for providing services to the needy.

A-4 Burstein – Public General Hospitals

Creates a legislative committee to oversee State appropriations for the support of public general hospitals.

A-73 Deverin – Automobile Accident Cases

Provides for the arbitration of automobile accident cases wherein the amount of controversy is $5,000 or less. Each case shall be submitted to a panel of arbitrators who are practicing attorneys. Two of them would hear the given case. This bill is of no medical significance.

A-250 Croce – Nursing Homes

Grants the Department of Health the authority to require nursing homes to reserve a stipulated number of beds for Medicaid patients.

Injections by Medical Assistants . . . Approved the following recommendation from the Council on Medical Services:

That the Board of Trustees support the ruling of the State Board of Medical Examiners regarding the restrictions on medical assistants giving injections until such time as the State Legislature acts to change the law.

Distribution of Medical Care in New Jersey . . . Approved the following recommendations resulting from Council on Medical Services' study of reports on health manpower distribution in New Jersey from the Department of Health, the Department of Higher Education, and the New Jersey Academy of Family Practice, which indicate there is a shortage of family physicians, orthopedists, and, in some areas, pediatricians:

1. That MSNJ conduct a placement service whereby a community or a physician seeking an associate would notify MSNJ of his need, which in turn would be made known to physicians seeking to relocate and/or to future physicians.

Note: Since the basis for this already exists through the list of "Physicians Seeking Location in New Jersey" published in *The Journal* each month, it was directed that this service be called to the attention of the county boards of chosen freeholders.

2. That county medical societies keep a running survey of the needs in their areas and publicize those needs through their county society bulletins.

Note: The Board directed that item #2 be referred to the specialty societies.

3. That specialty societies establish placement committees, keep a running survey of the needs (if any) in their specialties, and publicize those needs.

Note: The Board directed that item #3 be referred to the specialty societies.

4. That an annual survey of junior and senior medical school students in New Jersey be conducted regarding their projected specialization and location, so as to predict possible future shortages.

Note: The Board directed item #4 to the Medical Society of New Jersey Student Association.

5. That needs of particular areas, including pertinent information that would be of interest to new physicians, be given to MSNJ, which would, in turn, channel this information through the residency programs of the medical schools in New Jersey.

Note: The Board directed that item #5 be referred to the Medical Society of New Jersey Student Association with a request that MSNJSA survey those residents who plan to remain in New Jersey.

6. That county medical societies encourage and welcome members of the Public Health Service to attend county medical society meetings with a view toward their settling in that area.

Note: The Board directed that item #6 be referred to the county medical societies.

7. That county auxiliaries be encouraged to welcome new members, their wives/husbands, and families into the community with the view toward helping them to feel at home in the area.

Note: The Board directed that item #7 be referred to the Medical Society of New Jersey Auxiliary.

Blue Shield Elective Surgery Second Opinion Program . . . Authorized the Executive Committee and its staff to reply expeditiously to future comments in the same vein as that of Commissioner Sheeran's statement (in the *Newark Star-Ledger* of December 29, 1977) that the Elective Surgery Second Opinion Program "indicates that more than one out of three recommendations for surgery were unnecessary." Blue Shield confirmed the figures used in the article were those of the Plan but that they were interpreted inaccurately.

Committee on Drug Abuse . . . Approved the following recommendation from the Council on Mental Health:

That an Ad Hoc Committee on Drug Abuse be established and assigned the responsibility of assisting the National Committee To Declare War on Drugs in its endeavors.

Medicare Complaint . . . Approved the following recommendations from the Membership Inquiry and Complaint Committee with Medicare concerning what is primarily a philosophic issue—Medicare law mandates quality medical care; the implementation of cost controls by Prudential Insurance Company makes it difficult for physicians to render quality care. (Prudential has re-

sponded that payments may be refused when documented utilization exceeds the averages of peer groups and that cost controls evidenced by refusal of Prudential to honor payment for certain laboratory work may be the result of inadequate communication and documentation of need.)

1. That physicians throughout the state be informed of the importance of carefully filling out third-party forms for payment.

2. That the public, Congressmen, and Senators be informed of how cost constraints affect quality care and that overemphasis on one has an adverse impact on the other.

Ad Hoc Committee To Review National Commission Report on the Cost of Medical Care . . . Referred the report of the Ad Hoc Committee To Review the National Commission Report on the Cost of Medical Care to the House of Delegates.

Finance and Budget Committee . . . Approved the following recommendations from the Standing Committee on Finance and Budget. (The complete report of the Committee will be presented to the House of Delegates and will appear in the Transactions of the Medical Society of New Jersey issued in July.)

1. That the Board of Trustees authorize that the sum of $25,000, allocated in the 1977-1978 budget, be paid to the Academy of Medicine of New Jersey.

2. That up to $25,000 be included in the budget of the Committee on Medical Education for 1978-79 for postgraduate educational programs and activities, and that the Committee, with the concurrence of the Board of Trustees, be empowered to expend up to this amount in the course of the administrative year on the basis of need reflected in the 1978-79 fiscal report, to be submitted to the Committee on Finance and Budget.

3. That the 1979 per capita assessment be set at $173; that of the $173 per capita assessment, $10 and $5 be designated respectively for the member's *Journal* subscription and Annual Meeting registration; and that the full amounts realized as of May 31, 1979, be applied in 1979.

4. That the Board of Trustees approve a 1979 special per capita assessment of twenty dollars ($20) to serve as a grant to the New Jersey Foundation for Health Care Evaluation; that this special per capita assessment be set, in addition to, and not part of, the budgetary assessment; and that both be paid at the same time.

5. That the Board of Trustees approve an additional 1979 special per capita assessment of seven dollars ($7) to serve as MSNJ's contribution for the IPA/HMO Consortium's first year of operation; that other participating groups in the Consortium make proportionate similar contributions; that this special per capita assessment be set in addition to, and not part of, the budgetary assessment; and that all be paid at the same time.

Revision of Bylaws (Chapter I, Section 2-b) . . . Referred the following recommendation to the Standing Committee on Revision of Constitution and Bylaws:

That the Board of Trustees approve and refer to the Standing Committee on Revision of Constitution and Bylaws the following revision to MSNJ Bylaws — Chapter I — Membership — Section 2-b — List of Members; and that this revision be implemented, effective June 1, 1978.

(b) Five (5) days before the first of March (*January*) the Treasurer of each Component Society shall forward to the Treasurer of this Society a complete list, with names and addresses, of all paid-up and exempt members in good standing in this Society, at the same time remitting the assessment covering such membership.

Not later than the first day of March (*February*) in each year, the Secretary of each Component Society shall send to the Secretary of this Society a current list of associate, emeritus, and honorary members; members elected, deceased, and those who have resigned or moved from the county since the last report was submitted. Where members have transferred or have been received on transfer, the name of the county or state society to or from which they have transferred must be given.

Immediately after December 31 of each year, the Secretary of this Society shall notify each Component Society of the number of delegates to which it is entitled during the next succeeding year in the House of Delegates, based on the number of active members recorded in the office of the Secretary at that date. Associate membership shall not be included in such computation.

Not later than the first day of April (*March*) in each year, the Secretary of each Component Society shall send to the Secretary of this Society a complete list of the delegates and alternate delegates to this Society, together with the names of the delegates and alternate delegates to the Nominating Committee.

Note: Italics indicate suggested change.

CME Update . . . Instructed the Committee on Medical Education to continue its current procedure of encouraging members to complete their CME requirements.

. . . Directed that, in addition to current requirements, the Committee recognize certification or recertification (by specialty societies) received within the last three years, and other such extensions of compliance in spirit with the continuing medical education program.

Note: There are about 500 members of MSNJ who have not fulfilled the CME requirements dictated by the Bylaws, many of whom hold recent certification or recertification through their specialty societies.

CMDNJ Notes*

Stanley S. Bergen, Jr., M.D.
President

Fulfillment of the hope and promise of our contribution to the well-being of the people of the state continues to grow greater each year. More and more young physicians completing their training at the College of Medicine and Dentistry of New Jersey are choosing to "stay at home" to launch their medical careers.

Residency programs in New Jersey have become increasingly popular among CMDNJ graduates, with the number staying in the state more than tripling in the last five years. It is gratifying to see our graduates reaffirming the College's commitment to New Jersey, and particularly to our own teaching facilities, which augment health services in areas where additional manpower desperately is needed.

Of the total 272 new M.D.'s completing studies in the College's programs this month, 133, or nearly half, will join the housestaffs of New Jersey hospitals. Particularly pleasing to us is the fact that 78 of these—the largest group in the College's history—have chosen programs at CMDNJ's own facilities.

The new M.D.'s include 180 who graduated from the College's two medical schools—CMDNJ-New Jersey Medical School, Newark, and CMDNJ-Rutgers Medical School, Piscataway. The other 92 completed CMDNJ's Fifth Pathway Program, which helps American graduates of foreign medical schools to enter the mainstream of medicine in the United States by providing a year of intensive clinical training.

Fifty-five of the new New Jersey physicians will undertake postgraduate training at the CMDNJ-Martland Medical Center, the primary teaching hospital for the College's Newark campus. The other 23 will participate in the CMDNJ-Rutgers Medical School Affiliated Hospital Program, which consists of a rotation through community hospitals in Central Jersey affiliated with the medical school.

Since physicians tend to go into practice near the hospitals where they take their postgraduate training, the College's recent graduates have shown a real commitment to the areas most sorely in need of additional health manpower. This has been true particularly in Newark, where growing numbers of graduate physicians choosing residency programs at Martland Medical Center have helped to turn around the city's health picture. We expect to be able to do the same thing in Central and Southern Jersey in the near future, as our programs in those areas expand.

Ongoing expansion of the third and fourth year classes at CMDNJ-Rutgers Medical School, and its affiliation with Middlesex General Hospital, New Brunswick, will help to augment the physician supply in Central Jersey. In addition, the Piscataway school's South Jersey Medical Education Program, which will be enrolling its first class next year, has identified Cooper Medical Center, Camden, as its primary teaching facility.

Meanwhile, the CMDNJ-New Jersey School of Osteopathic Medicine, which enrolled its first class of 24 students last September, will place students in South Jersey osteopathic hospitals for clinical training in two years. John F. Kennedy Memorial Hospital, Stratford, has been identified as its major teaching affiliate.

Strengthening of our ties with these fine community hospitals and the exposure of our students to the needs and the opportunities of New Jersey communities will provide the basis for the development of strong postgraduate programs in these areas.

Other New Jersey hospitals that will be receiving 1978 CMDNJ graduates are: Saint Michael's Medical Center, Newark; Morristown Memorial Hospital, Morristown; Overlook Hospital, Summit; Hackensack Hospital, Hackensack; St. Barnabas Medical Center, Livingston; Monmouth Medical Center, Long Branch; Hunterdon Medical Center, Flemington; Muhlenberg Hospital, Plainfield; St. Joseph's Hospital, Paterson; Cooper Medical Center, Camden; Somerset Hospital, Somerville; United Hospitals of Newark; JFK Community Hospital, Edison, and Mountainside Hospital, Montclair.

Report from the Foundation

Daniel J. O'Regan, M.D.
Medical Director

By the time you read this, the 212th Annual Meeting of MSNJ will be history. Our congratulations to Dr. Frank R. Begen for a job well done, and best wishes to Dr. Charles S. Krueger for a fruitful Presidential year. The demands on our Presidents (and other officers) are increasing each year, and I'm sure that all of their colleagues appreciate their sacrifices of time. It must have been much easier 212 years ago. George III didn't have an HEW to make life "interesting" for his physician subjects.

To quote Mr. Jack Owen, the extremely able President of the New Jersey Hospital Association: "I know all of us would prefer that there be no regulation, but the realities of life are such that regulation of hospitals (*and doctors*) is here and what we need to do now is to develop effective and functional legislation that does not deprive New Jersey citizens of needed health care." (Italicized words added.)

At a recent hospital medical staff committee meeting, one member was concerned about the government "sticking its nose into our tent." Unfortunately, the nose entered in the late 1950s, and at least the upper lumbar vertebrae are inside now.

With clear-thinking leaders such as Drs. Begen and Krueger and Mr. Owen, let's hope that the "tent" can be kept intact.

Physicians Seeking Location in New Jersey

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly to them.

ANESTHESIOLOGY—Jitendra G. Patel, M.D., 133-52 Avery Avenue, Flushing, New York 11355. M. P. Shah Medical College (India) 1972. Board eligible. Group, partnership, solo. Available July 1978.

INTERNAL MEDICINE—Ram Krishna Reddy, M.D., 280 Henderson Street, Apt. 16-0, Jersey City 07302. Gandhi (India) 1963. Subspecialty, gastroenterology. Solo, group, partnership. Available July 1978.

Khaleeq U. Arshed, M.D., 420 East 102nd Street, Apt. 13-G, New York, New York 10029. Nishtar (Pakistan). Board eligible. Solo, partnership. Available July 1978.

Mark A. Kaplan, M.D., 523 East 14th Street, New York, New York 10009. Chicago 1974. Board eligible. Group or partnership. Available July 1978.

John R. Keiper, M.D., 3900 Park Avenue, Apt. 1-B, Bridgeport, Connecticut 06604. University of Texas 1976. Board certified. Group, partnership. Available July 1979.

Y. E. Szoke, M.D., 800 Forest Avenue, Apt. 15-E, Westfield 07090. Board eligible. Family practice setting, group, partnership, solo, associate. Available July 1978.

Stephen Winograd, M.D., 208 Walnut Street, Montclair 07042. NYU 1972. Subspecialty, gastroenterology. Board certified. Group, partnership, solo. Available.

OBSTETRICS/GYNECOLOGY – Dong Wook Shin, M.D., 850 Station Avenue, Cornwells Heights, Pennsylvania 19020. Korea University. Board eligible. Solo or partnership. Available July 1978.

PATHOLOGY – Firozali K. Panjvani, M.D., 38 Oak Avenue, Apt. 34, Worcester, Massachusetts 01605. Makerere (Uganda). Any type practice. Available July 1978.

Neena Mirani, M.D., 141 Old Short Hills Road, Apt. 46, Bldg. 4, West Orange 07052. T.N. Medical College (India) 1971. Board eligible. Hospital. Available July 1978.

Raja Ranasinghe, M.D., 124 Lake Street, Englewood 07631. University of Ceylon (Sri Lanka) 1969. Board certified in anatomic and clinical pathology. Group, solo, industrial, or hospital. Available.

Vidya Deshpande, M.D., 11433 Maridosa Trail, Apt. B, Florissant, Missouri 63033. B.J. Medical College (India) 1970. Board certified. Special interest, anatomic and clinical pathology. Group. Available July 1978.

PEDIATRICS – Kanai L. Das, M.D., 89-21 153rd Street, Jamaica, New York 11432. Trivandrum (India) 1963. Board eligible. Group, partnership, solo. Available.

Nirmala Panda, M.D., 501 Sixth Street, Apt. 8-E, Brooklyn, New York 11215. Christian Medical College (India) 1965. Board eligible. Group, partnership, hospital. Available July 1978.

P. N. Varma, M.D., 506 6th Street, Brooklyn, New York 11215. Rangaraya Medical College (India) 1969. Board eligible. Group or partnership. Available July 1978.

Sharda J. Doshi, M.D., 89-06 135th Street, Apt. 5-J, Jamaica, New York 11418. B. J. Medical College (India). Board eligible. Group, partnership. Available July 1978.

Kyung-Ro Kwak, M.D., 1440 Freeport Loop, Apt. 2-A, Brooklyn, New York 11239. Pusan (Korea) 1963. Board eligible. Any type practice. Available July 1978.

C. B. Rao, M.D., 1825 Parkside Drive, Apt. 1-2, Parkridge, Illinois 60068. Guntur Medical College (India) 1966. Board eligible. Partnership, group, solo. Available July 1978.

PHYSICAL MEDICINE/REHABILITATION – Vidya J. Rao, M.D., 100 Livingston Avenue, Edison 08817. Sarojini-Naidu Medical College (India) 1971. Board eligible. Full-time job in hospital as physiatrist. Available.

PSYCHIATRY – Kyung-Seok Han, M.D., 200 Carman Avenue, Apt. 9-G, East Meadow, New York 11554. Seoul (Korea) 1970. Board eligible. Mental health clinic or inpatient unit. Available July 1978.

PULMONARY DISEASES – Kyung Ook Yoon, M.D., 80-15 41st Avenue, Apt. 342, Elmhurst, New York 11373. Yonsei Medical School (Korea) 1971. Board eligible. Institution or partnership. Available July 1978.

SURGERY, GENERAL – Shahid H. Hashmi, M.D., 5214 Lancelot Lane, N.W., Roanoke, Virginia 24019. King Edward (Pakistan). Board eligible. Solo, partnership. Available.

B. M. Shivashankar, M.D., 32 Deanna Drive, Apt. 77, South Somerville 08876. Mysore (India) 1969. Special interest in colon and rectal surgery. Board eligible. Group, partnership, solo. Available May 1978.

Ramesh P. Shah, M.D., 3305 Broeck Pointe Court, Louisville, Kentucky 40222. Seth G.S. (India). Board eligible. Any type practice. Available.

Francis P. Badamo, M.D., 1585 Beech Street, Wantagh, New York 11793. University of Pennsylvania 1970. Board certified. Group, partnership, multi-specialty clinic. Available July 1978.

Sid Anur, M.D., 1500 East 10th Street, Winfield, Kansas 67156. Karantak (India) 1965. Subspecialty, endoscopy. Board eligible. Group, partnership, solo, or institutional. Available.

Peter R. Douglas, M.D., Two Rosewood Lane, Essex Junction, Vermont 05452. SUNY (Downstate) 1971. Board eligible. Any type practice. Available July 1978.

Alessandro Ferrero, M.D., 1915 Laird Drive, Salt Lake City, Utah 84108. Universita di Torino (Italy) 1967. Special interest in thoracic and cardiovascular surgery. Board certified. Group or partnership. Available July 1978.

SURGERY, ORTHOPEDIC – DeWitt C. Brown, III, M.D., 1344 Fairacres Road, Rydal, Pennsylvania 19046. George Washington University 1968. Board certified. Solo, partnership. Available.

UROLOGY – Steven H. Paletsky, M.D., 126-C Remington Avenue, Syracuse, New York 13210. South Carolina. Board eligible. Group, partnership, associate, solo. Available January 1979.

Bhuta Dharampal, M.D., 1935 Eastchester Road, Apt. 3-A, Bronx, New York 10461. M.G.M. Medical College (India) 1970. Board eligible. Group, partnership, solo. Available July 1978.

Saad S. Antoun, M.D., 1614 Union Turnpike, North Bergen 07047. Cairo 1964. Board eligible. Group, partnership, solo. Available July 1978.

Peter T. Nieh, M.D., 103 Locust Street, Burlington, Massachusetts 01803. Cornell 1973. Board eligible. Group or partnership. Available January 1979.

Barbara Bronson Hammett – MSNJ Auxiliary President



Like so many of her predecessors, Bobbie Hammett's interests and activities are broad enough to boggle the mind. The new President of the Medical Society of New Jersey Auxiliary, who was the first President of the Auxiliary to the Sussex County Medical Society, has served the state organization in many capacities – as an officer who ascended the ranks and as chairman of numerous major committees.

Born in New Brunswick, raised in Milltown, and educated at the Vail-Deane Preparatory School, Stetson University, and Rutgers University, from which she holds a master's degree in education, Mrs. Hammett married Douglas A. Hammett while he was a medical student at the University of Toronto. Her early career included public school teaching, professional acting, and directing a school of dance which she established.

Along with her husband, who practices family medicine in Sussex County, Mrs. Hammett is an avid hunter, angler, sports enthusiast, and traveler. She is an active member and leader in many organizations, including the American Association of University Women, the Order of Eastern Star, the Sussex County Arts Council, and the March of Dimes.

The Hammetts, who reside in Sparta, have a son, Douglas, Jr.

LETTERS TO THE JOURNAL

Medicaid Director Responds

February 26, 1978*

Dear Sir:

This is in reference to the "Medicaid Madness" article by Dr. Murray Strober which appeared in the commentary section of your January 1978 issue. (*J Med Soc NJ* 75:69-71)

As the Acting Director of the Division of Medical Assistance and Health Services, I found Doctor Strober's article to be inaccurate and would like to offer the following response.

A Medicaid fair hearing is a quasi-judicial proceeding. The Hearing Officer acts as a fact finder for the Director of the Division of Medical Assistance and Health Services. He conducts the hearing in accordance with the Administrative Procedure Act. He considers the evidence presented and writes a Hearing Report. The Hearing Report sets forth the following:

1. A discussion of the evidence presented by both parties.
2. The Hearing Officer's Findings of Fact.
3. The Hearing Officer's Recommendation.

Since the Hearing Report is the record of the hearing, it is necessary that it be as thorough as possible and sets forth all the facts for the record. Therefore, it is necessary for the Hearing Officer to ask questions even though a witness may find such questions mundane.

The decision that the care rendered to the patient was not medically necessary in an inpatient hospital setting was made by the medical staff at Blue Cross; however, the decision of the Blue Cross medical staff is not final. The Medicaid program allows those physicians who have claims denied the opportunity for fair hearings.

Doctor Strober inadvertently sent his hearing request of August 12, 1976 to The Prudential Insurance Company of America rather than to the Division of Medical Assistance and Health Services. It was received by the Division of Medical Assistance and Health Services on September 10, 1976 and docketed. Due to the number of hearing requests which this Division receives, Doctor Strober's hearing could not be scheduled until May 12, 1977.

Prior to the hearing, Blue Cross requested that certain progress notes be printed or typed. This request was not unreasonable, since the notes were not legible.

The Hearing Officer issued his report on May 31, 1977. The report was sent to Dr. Strober and the Blue Cross physician who attended the hearing. Both physicians were allowed to submit any written exceptions, but they chose not to do so. The Hearing Officer's Report then was submitted to me for my review, and on July 20, 1977 I issued a Final Agency Decision in the matter. A copy of this decision was sent the same day to Dr. Strober, Blue Cross, and Prudential.

While this procedure of circulating the Hearing Report may seem cumbersome to some members of the medical profession, it is required by the New Jersey Administrative Procedure Act because the Hearing Officer is not authorized to render a final decision. In all hearings before this Division, the Director renders the final decision. Both the Hearing Officer and myself ruled in favor of Dr. Strober.

Since Dr. Strober received a favorable ruling, he was entitled to be paid. The Hearing Unit was not aware of any problems with payment until we received a letter from Dr. Strober on September 20, 1977. Prudential was promptly notified about the problem and we were informed on September 28, 1977 that a check would be issued shortly.

I would like to add further that the Hearing Officer does not arbitrarily decide if an ill patient merits further care. The Hearing Officer bases his recommendation upon the testimony presented by the appealing physician and Blue Cross physician, and determines if the appealing physician acted in accordance with the regulations of the Division of Medical Assistance and Health Services.

Dr. Strober is quite disturbed that he had to appear before a Hearing Officer who is not a physician; however, Dr. Strober was prepared "to hire an attorney to carry the case to a higher authority." The "higher authority" after an administrative hearing, is the Superior Court, Appellate Division. I assume Dr. Strober would have objected to the Appellate Division reviewing this case since appellate judges, as well as the justices of the New Jersey Supreme Court, fall within Dr. Strober's definition of "a non-professional person".

I hope this letter will help explain the events that occurred with respect to Dr. Strober and clarify some of the procedures involved in the claims review/hearing process.

(signed) Thomas M. Russo
Acting Director

*Postmarked April 5, 1978 and received April 6, 1978

The FTSC and Quality Care

March 30, 1978

Dear Editor:

I particularly enjoyed the response to Dr. Rapkin's article in the March Journal (*J Med Soc NJ* 75:220). I am sure you are aware of the problems that Middlesex and Cooper have in converting to full-time chiefs of staff. Since these only involve five or six teaching services and have created so much commotion in community hospitals it would be hard to imagine the general use of these in New Jersey.

Even Hunterdon has found this presents problems even though it was founded on this concept.

The points this made and the fact that a FTSC did lose its value by inaction, obsolescence, or competition was quite valid.

One of the things that no one seems to pay attention to as a parameter of quality care is the advice of nursing supervisors. At least in medium and small hospitals nursing supervisors, and quite often the General Practice Section, are quite often aware of the major deficiencies of quality care. We have utilized this mechanism quite extensively in a Joint Practice Committee which meets monthly. It is made up of two nurses and two physicians and two or more consultants. Other than the Medical Director and Medical Staff Secretary the

personnel changes every six months and the consultants are picked from the outstanding complainers of the month.

I have been very impressed with *The Journal* under your management, knowing well that Henry Davidson was a hard act to follow.

For information only I should like to add Bridgeton Hospital to the list of hospitals with licensed helipads. (*J Med Soc NJ* 75:221)

(signed) Sherman Garrison, M.D.

April 12, 1978

Dear Sir:

I must take exception to the basic tenet underlying the editorial of Richard H. Rapkin, M.D., "Assurance of Quality Care," in the March 1978 issue of *The Journal* (75:216). The FTSC, the "full-time salaried service chief" of a department is probably the poorest choice to assess quality of patient care by his department. If his responsibility "is not divided between that of service and office practice," he will have little conception of the realities of everyday medical realities. Supported by the hospital administration or the University authorities, he operates on a plane several levels higher, and often out of earshot of the everyday exchanges of doctor-patient relationships. Whether designated as the inhabitant of an "ivory tower," or merely the prisoner of non-clinical theory, he is clearly the least capable to judge the activities of medical practice.

By contrast, the service chief who is engaged in a non-salaried private practice, i.e., realities of office and hospital life, must develop a realistic appraisal of the necessary balance between ideology and practical applications of medicine.

It seems quite simplistic to assume that a physician, "chosen because of expertise and academic background" and salaried on a fulltime basis, must *by definition* be endowed with superhuman qualities or even competent levels of medical diagnostic and administrative acumen. Several unfortunate recent experiences with such individuals in area hospitals would underline the fallacy of this assumption. By contrast, many non-salaried chiefs of departments have demonstrated over many years their ability to enhance the quality of care rendered by their service and to enhance the prestige of their specialty and the respect of the community of the patients. The time has come to stop perpetuating nonsense that academic expertise and empathetic quality of care cannot be achieved in private practice.

(signed) Richard B. Bloomenstein, M.D.

Comments on Flexor Tendon Repair

April 14, 1978

Dear Sir:

I would like to compliment Dr. Massengill for his results in primary and delayed primary repairs of flexor tendons in "no-man's land": 18 consecutive cases. *J Med Soc NJ* 75:307-310, April 1978.

Several comments should be made. Not every patient is a candidate for primary flexor tendon repair and not every surgeon should perform such a repair. The patient should be selected for youth, suppleness of joints, relative cleanliness of wounds, high level of cooperation and low level of expectation.

The "occasional" hand surgeon should never attempt a primary repair of flexor tendons. Unfortunately, some still attempt, but few succeed. The possible advantages to the patient of a primary or "delayed primary" repair may be disastrous if healing is complicated. It should be remembered that a two-stage operation with debridement, reconstruction of pulleys, and placement of a silicone rod for reforming of a flexor tendon sheath as a preliminary stage, followed by secondary tendon grafting through the reconstructed sheath and removal of the rod, can produce an excellent result.

Finally, I would like to point out that use of magnification in the range of 4 to 5 power, whether by loupe or microscope, is certainly essential for the nerve repairs which so often accompany the tendon repairs and can help visually with the lessening of surgical trauma to the repair of flexor tendons.

(signed) Richard B. Bloomenstein, M.D.

The Transactions of the 1978 House of Delegates will appear as a separate issue of *The Journal*. Mailing date is July 19, 1978.

CME INFORMATION

Conference on Primary Care of Hand Injuries

The American Society for Surgery of the Hand will sponsor a four-day conference on primary care of hand injuries, September 29 through October 1 at The Cloister, Sea Island, Georgia. Designed for physicians who treat acute hand trauma—emergency room physicians, general practitioners, orthopedic, plastic, and general surgeons—the course is geared to physicians who have not had formal training in surgery of the hand. Functional anatomy, general principles of wound treatment, and specific injuries are emphasized. Included will be lectures, workshops, round table discussions, and small group sessions. Topics include anatomy and general principles, integument and nerves, skeletal system, tendons and burns, rationale for reconstruction, and others. Tuition is $250 ($100 for residents who have a letter from their institution). Twenty-four credits will be awarded in category I of the AMA Physician's Recognition Award. Application has been made for credit hours with the American College of Emergency Physicians and the American Academy of Family Practice. For additional information please communicate with Gail M. Gorman, Administrative Director, American Society for Surgery of the Hand, 2600 South Park Road, Room 233, Aurora, Colorado 80014. (303) 755-4588).

Pediatric and Adolescent Echocardiography

At the Desert Inn in Las Vegas, under the sponsorship of the American Society of Echocardiography and the American Institute of Ultrasound in Medicine, the Department of Pediatrics of the University of Arizona Health Sciences Center will present a course in pediatric and adolescent echocardiography on November 10, 11, and 12—the weekend just preceding the meeting of the American Heart Association at the same location. Newer techniques, such as contrast echo, cross-sectional echo, and echo Doppler, which have the capacity to augment M-mode echocardiography, will be presented on the 11th and 12th. The preceding day there will be a session—an M-mode Primer—to assist those who have limited experience in echocardiography. The fee, which must accompany request for registration, is $300 for both courses, $225 for the two-day course, and $100 for the primer session. The programs have been accepted for accreditation in Category I of the AMA Physician's Recognition Award. For information and registration please communicate with Pediatric Echocardiography Course, 4340 Placita Panuco, Tucson, Arizona 85718.

Cancer Chemotherapy Symposium

On October 27 and 28 the Mount Sinai Medical Center, New York, is sponsoring a chemotherapy symposium entitled "New Developments and Changing Concepts in Cancer Chemotherapy." The program has been arranged by the Division of Medical Oncology, Department of Medicine, the Department of Neoplastic Diseases, and the Postgraduate School of Medicine of Mount Sinai School of Medicine. For registration and information, please communicate with Dr. Ezra M. Greenspan, Chairman, at the Postgraduate School, Mount Sinai School of Medicine, One Gustave L. Levy Place, New York 10029.

CME CALENDAR

This listing is compiled through the cooperation of the Committee on Medical Education of the Medical Society of New Jersey, the Academy of Medicine of New Jersey, the New Jersey Chapter of the American Academy of Family Physicians, and the Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey. For information on accreditation, please contact the sponsoring organization(s), indicated by italics—last line of each item.

12, 19, 26 Neuroscience Conferences
11:30 a.m.-12:30 p.m.—Bergen Pines County Hospital, Paramus
(Bergen Pines County Hospital and AMNJ)

13 Exhibitionism
8-10 p.m.—65 Haddon Avenue Haddonfield
(Delaware Valley Study Group in Forensic Psychiatry and AMNJ)

13, 27 Nuclear Medicine in Chest Diseases Pump Failure
8-9 a.m.—Greater Paterson General Hospital
(Greater Paterson General Hospital and AMNJ)

14 Ethical and Medico-Legal Problems in Therapist-Patient Sexual Relations
8-10 p.m.—Silver Lake Inn, Clementon
(South Jersey Psychiatric Association and AMNJ)

14 Psychopharmacology
1:30-3:30 p.m.—Trenton Psychiatric Hospital
(Trenton Psychiatric Hospital and AMNJ)

14 Advances in Medicine
9:30-11 a.m.—Bergen Pines County Hospital, Paramus
(Bergen Pines County Hospital and AMNJ)

14 Immunization Practices—An Update
1-3 p.m.—Christ Hospital, Jersey City
(Christ Hospital, AAFP, and AMNJ)

14 Psychiatry
1-3 p.m.—Ancora Psychiatric Hospital Hammonton
(Ancora Psychiatric Hospital and AMNJ)

14 Current Biological Concepts in Psychiatry
1-2:30 p.m.—Community Health Center (CMDNJ), Newark
(CMDNJ and AMNJ)

15 Beta-Adrenergic Blocking Agent in Cardiovascular Disease
5-6:30 p.m.—Somerset Hospital Somerville
(Somerset Hospital and AMNJ)

15 Carcinoma of the Breast: Part II—Treatment
11:45 a.m.—J.F. Kennedy Medical Center, Edison
(J.F. Kennedy Medical Center)

16 Sports Medicine
12 noon—Freehold Area Hospital
(AMNJ and AAFP)

16 Neurological Diagnosis by Inspection
8:15-10:30 a.m.—Overlook Hospital Summit
(Overlook Hospital and AMNJ)

20 Northern Regional Chest Conferences
7:30-9:30 p.m.—Beth Israel Hospital Newark
(New Jersey Thoracic Society and AMNJ)

20 Acute and Chronic Leukemia
12 noon—St. Mary's Hospital, Orange
(AMNJ and AAFP)

20 Shock
8:30 p.m.—Marriott Motor Inn Saddle Brook
(Fair Lawn Memorial Hospital, AMNJ and AAFP)

20 Management of Chronic Patients
1:30-3 p.m.—Trenton Psychiatric Hospital
(Trenton Psychiatric Hospital and AMNJ)

20 Psychiatry for the General Practitioner
12 noon-2 p.m.—South Amboy Memorial Hospital
(South Amboy Memorial Hospital, Community Health Center, and AMNJ)

20 Ventricular Arrhythmias
12 noon-1 p.m.—West Jersey Hospital Voorhees
(West Jersey Hospital and AAFP)

21 Special Problems in Neurology
7-10 p.m.—VA Hospital, East Orange
(VA Hospital and AMNJ)

21 Controversial Aspects in Tuberculosis
1-2 p.m.—VA Hospital, Lyons
(VA Hospital and AMNJ)

21 Cardiac Complications in Patients with Mental Illness
1:15-2:45 p.m.—Marlboro Psychiatric Hospital
(Marlboro Psychiatric Hospital and AMNJ)

21 Cardiology Conferences
4-6 p.m.—Rutgers Medical School Piscataway
(CMDNJ and AMNJ)

21 Use of Psychopharmaceuticals in the Psychotic
3:15-4:45 p.m.—Fair Oaks Hospital, Summit
(Fair Oaks Hospital and AMNJ)

22 Current Concepts of Pain
12 noon-1 p.m.—St. Mary's Hospital Orange
(St. Mary's Hospital and AMNJ)

22 Pathophysiology of Edema—Intermittent Idiopathic Edema
11:45 a.m.—J.F. Kennedy Medical Center, Edison
(Searle Laboratories and J.F. Kennedy Medical Center)

23 Metabolic Consequences of Potassium Depletion
11 a.m.-12 noon—CIBA Pharmaceuticals Division, Summit
(CIBA Pharmaceuticals Division and AMNJ)

23 New Concepts in Coronary Care
11 a.m.-12:30 p.m.
(Saddle Brook General Hospital and AMNJ)

23 Psychophysiology of Sleep in Biological Psychiatry
2-4 p.m.—Trenton Psychiatric Hospital
(Trenton Psychiatric Hospital and AMNJ)

24 The Leukemias
8-10 a.m.—Newcomb Hospital, Vineland
(Newcomb Hospital and University of Pennsylvania Hospital)

24 Radiology Continuing Education Lecture Series
Southern Ocean County Hospital Manahawkin
(Burlington County Memorial Hospital and AAFP)

27 Current Radiation Therapy
8 p.m.—Warren Hospital, Phillipsburg
(AMNJ and AAFP)

28 Cardiac Grand Rounds
3-4:30 p.m.—New Jersey Medical School, Newark
(American Heart Association (N.J. Affiliate, CMDNJ), and AMNJ)

29 Complications of Continuous Ventilatory Support
11:45 a.m.—J.F. Kennedy Medical Center, Edison
(Pfizer Laboratories and J.F. Kennedy Medical Center)

29 Evaluation of Patient with Vertigo
8-9 p.m.—John E. Runnells Hospital Berkeley Heights
(John E. Runnells Hospital and AMNJ)

30 Chronic Obstructive Lung Disease
12:30 p.m.—Hamilton Hospital, Trenton
(AMNJ and AAFP)

July

6-9 The RAST Workshop
8:30 a.m.—Downingtown Inn Downington, Pa.
(Holy Name Hospital and AMNJ)

Sept.

7-11 4th Memorial Ignatz Semmelweis Seminar
Playboy Club, Great Gorge, New Jersey
(New Jersey Medical School)

OBITUARIES

Dr. Bernard F. Alpren

One of Paterson's well-known ophthalmologists, Bernard F. Alpren, M.D., died on March 18 in Beth Israel Hospital, Passaic. Born in 1913 and graduated from the University of Arkansas School of Medicine in 1937, Dr. Alpren took residencies in ophthalmology at Polyclinic Hospital and Bellevue Medical School in New York. He returned to his native Paterson to establish a practice in that specialty which he maintained until retirement in 1976. Dr. Alpren had been on the staff at Barnert Memorial and Passaic Beth Israel Hospitals, and the Paterson Eye and Ear Infirmary. He was active in civic affairs, having had terms as a school physician in Paterson and health officer in East Paterson. During World War II Doctor Alpren served in the department of medicine of the AUS.

Dr. C. Byron Blaisdell

Charles Byron Blaisdell, M.D., whose activities in behalf of organized medicine spanned thirty-plus years, from the mid-thirties to the mid-sixties, died on April 20 in Eatontown. Dr. Blaisdell had been president of his county medical society, Monmouth, in 1939, and on the state level he was chairman or member of the Subcommittee on Public Health and several advisory committees, which made up the old Welfare Committee. Later he was chairman of the Council on Legislation and served several terms on the Board of Trustees of which he was chairman in 1954, 1955, and 1956. He was a delegate to the AMA for many years and served on the AMA's Council on Legislation. Internationally, Dr. Blaisdell was North American vice president of the section on urology of the Pan-American Medical Association.

A graduate of Harvard University Medical School in 1917, Dr. Blaisdell pursued graduate work at Rockefeller Institute and New York Postgraduate Hospital. He practiced urology in Long Branch for 45 years, and was on the staff of Monmouth Medical Center, serving five years as president of the medical board of that institution and director of the department of urology for an equal length of time. He also had been affiliated with Riverview Hospital in Red Bank and the Point Pleasant Hospital. Dr. Blaisdell was a past president of the New Jersey Public Health and Sanitary Association, a member of the New Jersey Public Health Council, and a leader in formulating programs for better medical care for the aged. Locally he was, for many years, a member of the Long Branch Board of Education. He was a member of the American Urological Association and the Academy of Medicine of New Jersey. During World War II, Dr. Blaisdell served as a lieutenant commander in the United States Navy for four years, during most of which time he saw service in the Pacific. He was a recipient of MSNJ's Golden Merit Award indicating 50 years of active practice. Dr. Blaisdell retired from active practice in 1969. He was 80 years old at the time of his death.

Dr. Victor A. Blenkle

One of Bergen County's senior members, Victor A.M. Blenkle, M.D., died on April 15. Born at the turn of the century and graduated from Cornell University Medical School in 1925, Dr. Blenkle had practiced general medicine in Bergen County for many years. He had been affiliated with Holy Name Hospital in Teaneck, and was a member of the American Academy of Family Practice and the Academy of Medicine of New Jersey. Dr. Blenkle was a 1975 recipient of MSNJ's Golden Merit Award for 50 years of practice. He had retired in early 1977 because of illness.

Dr. Francesco DeRobbio

Word has been received of the death on March 24 of Francesco DeRobbio, M.D., a member of the Monmouth County Medical Society. Born in Italy in 1927 and educated at the University of Naples where he received a medical degree in 1953, Dr. DeRobbio came to Jersey City for internship and went on to take a residency in psychiatry at Rhode Island State Hospital in Providence, and at the New Jersey State Hospital at Ancora. He was affiliated with Monmouth Medical Center, Riverview Hospital in Red Bank, and Bayshore Hospital in Holmdel, and had been clinical instructor in psychiatry at Seton Hall College in the 60's.

Dr. Harry N. Ein

Word has just been received of the death on February 10 in Orange Memorial Hospital of Harry N. Ein, M.D., a member of our Essex County component. Born in Nova Scotia, Dr. Ein, a graduate of McGill University School of Medicine (Montreal), took further studies in orthopedic surgery, becoming board certified in that specialty. He was on the orthopedic surgery staff of Newark Beth Israel and Crippled Childrens Hospitals in Newark and East Orange General Hospital. Dr. Ein was a Fellow of the New Jersey Orthopaedic Society. He was 61 years old.

Dr. Frank D. Fenimore

A member of our Morris County component, Frank D. Fenimore, M.D., died on April 1. Born in 1910 and graduated from Marquette University School of Medicine, class of 1939, Dr. Fenimore pursued a career in psychiatry. He had been affiliated with the New Jersey State Hospital at Greystone Park for many years and had been appointed medical director in 1973 after having served a period of time as the acting medical director. Dr. Fenimore was a member of the American and New Jersey Psychiatric Associations.

Dr. Sol T. Furman

A member of our Hudson County component, Sol T. Furman, M.D., died on April 17 at Riverview Hospital, Red Bank. Born in 1904 and graduated from Temple Medical School, class of 1929, Dr. Furman practiced industrial medicine and surgery in Jersey City for almost 50 years. He had been affiliated with Christ and Fairmount Hospitals and the Medical Center in Jersey City. He was a member of the Industrial Medical Association and of the Academy of Medicine of New Jersey.

Dr. J. Wallace Hurff

Word has been received of the death of J. Wallace Hurff, M.D., on March 15, following a heart attack while vacationing in Delray Beach, Florida. Born in 1890, and graduated from Jefferson Medical College in 1913, Dr. Hurff pursued graduate studies in ophthalmology and otolaryngology and was board certified in both of those specialties. In 1966 he retired from a career that spanned more than half a century. He was a Fellow of the American College of Surgeons and a member of the New Jersey Chapter, and had been on the staff at Presbyterian (where he was chief of the department of ophthalmology) and St. Michael's Hospitals and the Eye and

Ear Infirmary in Newark. He was active in medical society affairs and had been president of his county medical society (Essex) and of the New Jersey Academy of Ophthalmology and Otolaryngology; on the state level he had been chairman of MSNJ's Committee on Medical Defense and Insurance. Dr. Hurff was a member of the prestigious New Jersey Society of Surgeons and of the Academy of Medicine of New Jersey.

Dr. Herbert Kainer

We have just learned of the death last August 24 (1977) of Herbert Kainer, M.D., a member of our Hudson County component. Born in 1906 in Berlin, Germany, and graduated from the medical school of the University of Berlin in 1929, Dr. Kainer emigrated to the United States in the late 1930's and came to North Bergen to establish a practice in surgery with special interest in proctology. He was a Fellow of the American Society of Abdominal Surgeons and of the International College of Surgeons, and a member of the Academy of Medicine of New Jersey. He had been on the staff of the North Hudson Hospital in Weehawken. During World War II, Dr. Kainer served in the medical department of the Army of the United States.

Dr. Altan C. Leibovitz

One of Passaic County's senior physicians, Altan C. Leibovitz, M.D., a Passaic surgeon for 53 years, died at his home on March 15. A graduate of New York University Medical College, class of 1924, Dr. Leibovitz took a residency in surgery at Newark City Hospital (now Martland) and had been on the staff at Passaic Beth Israel and Passaic General Hospitals. Dr. Leibovitz was interested in industrial medicine and was medical director for several companies in Passaic and Bergen Counties. He was a 1974 recipient of the Medical Society of New Jersey's Golden Merit Award, indicating 50 years of service. Dr. Leibovitz was 78 years old at the time of his death.

Dr. Nicholas R. Menna

On March 19, Nicholas R. Menna, M.D., a member of our Gloucester County component, died at his home. Born in 1913, and graduated from Hahnemann Medical College, class of 1938, Dr. Menna had been a general practitioner in Williamstown for many years. He had been active in civic affairs and was police surgeon for Monroe Township.

Dr. Edward I. Margaretten

Edward I. Margaretten, M.D., a member of our Middlesex County component, died on April 2. A graduate of Bellevue Medical College, New York, in 1932, Dr. Margaretten practiced internal medicine with special interest in cardiology and was board certified in those fields. He had been affiliated with Perth Amboy General Hospital where he had served a term as director of medicine. He was a Fellow of the American College of Physicians and of the American College of Cardiology. Dr. Margaretten was 72 years old at the time of his death.

Dr. F. Leland Rose

Francis Leland Rose, M.D., a member of our Camden County component, died suddenly on April 5. Born in 1915 and graduated from Jefferson Medical College in 1943, Dr. Rose pursued graduate studies in obstetrics and gynecology and became board certified in that specialty. He was a Fellow of the American College of Surgeons and of the American College of Obstetricians and Gynecologists, and was chief of the department of gynecology at Cooper Medical Center (Camden) and on the associate attending staff in the department of obstetrics and gynecology at Jefferson Hospital, Philadelphia.

Dr. Sydney Rosenthal

Sydney Rosenthal, M.D., a member of our Essex County component, died in Beth Israel Medical Center in Newark on March 14. Born just after the turn of the century, and graduated from Michigan University School of Medicine in 1927, Dr. Rosenthal pursued graduate studies in gastroenterology at the University of Pennsylvania Graduate School of Medicine. He was a Fellow of the American College of Physicians and a member of the American Society of Internal Medicine and of the New Jersey Gastroenterological Society. He had been on the staff at Newark Beth Israel and Newark City (Martland Medical Center) Hospitals, and also was emeritus chief of gastroenterology at the Veterans Administration Outpatient facility in Newark. During World War II he served in the medical department of the U.S. Army.

Dr. C. Howard Rothfuss

One of Middlesex County's senior members, Charles Howard Rothfuss, M.D., died on April 4 after a long illness. Graduated from Cornell Medical College, New York, in 1928, Dr. Rothfuss had been a general practitioner in Woodbridge for 47 years until retirement in 1975. He was a Fellow of the American College of Cardiology and of the American Academy of Family Practice. Dr. Rothfuss had been affiliated with the Perth Amboy General Hospital. He was 82 years old.

Dr. George O. Rowohlt

One of Bergen County's well-known senior physicians, George O. Rowohlt, M.D., died on March 15 after a long illness. Born in 1905 and graduated from Tufts Medical College, class of 1932, Dr. Rowohlt had been a general practitioner in Dumont for many years and was affiliated with the Holy Name Hospital in Teaneck. Dr. Rowohlt was president of his county medical society in 1960-1961 and long had been a representative to the State Society's House of Delegates. Dr. Rowohlt served for several years as chairman of MSNJ's Advisory Committee to the Woman's Auxiliary.

Dr. Albert S. Tenney

In his 93rd year, Albert S. Tenney, M.D., formerly of Glen Ridge, died on March 30 in Waterville, Minnesota, where he had been living since 1967. Born in Taiku, China, the son of a missionary, Dr. Tenney was educated in Paris and received his medical degree from Harvard Medical School in 1908. He practiced in Seattle, Washington for five years, followed by six years in China, before coming to New Jersey to establish a practice in dermatology, which he maintained for 47 years. Dr. Tenney had been affiliated with Orange Memorial Hospital. He was fluent in written and spoken Chinese and a composer of piano music, much of which was published.

Dr. John C. Whitaker

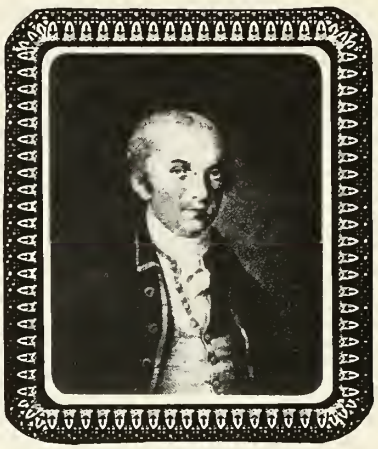
One of Burlington County's senior practitioners, John C. Whitaker, M.D., died on April 1. A graduate of Hahnemann Medical College, class of 1938, Dr. Whitaker practiced general medicine in Riverton for many years. He had been affiliated with Zurbrugg Memorial Hospital in Riverside and West Jersey Hospital in Camden. During World War II Dr. Whitaker served in the medical department of the Army of the United States. He was 70 years old at the time of his death.

SURGEON TO WASHINGTON

Dr. John Cochran (1730-1807)

MORRIS H. SAFFRON

"Dealing with the life and letters of Dr. John Cochran, this important book chronicles his ascent from apprentice to an eminent 'practitioner of physick' in his late teens to Director General of the Medical Department of the Continental Army at 51. . . . This remarkably charming, sincere, modest, and able physician was truly one of our medical forefathers, who played an important role in the birth of our own medical society—the first in the nation."—*Journal of the Medical Society of New Jersey* $17.50



Dr. John Cochran (1730–1807)

COLUMBIA UNIVERSITY PRESS

Address for orders:
136 South Broadway, Irvington, New York 10533

III CHEMOTHERAPY FOUNDATION SYMPOSIUM

NEW DEVELOPMENTS AND CHANGING CONCEPTS IN CANCER CHEMOTHERAPY

October 27 and 28, 1978

Friday and Saturday, 9:00 AM to 5:00 PM

Barbizon Plaza Hotel New York City

Fees: Attendings: $150. Housestaff, Fellows, Students: $50.

New Phase I Drugs. Methotrexate/Fluorouracil/Thymidine Interactions. Adriamycin Analogues. Experimental Applications of Cis Platinum. Advances in Combination Chemotherapy. Concepts of Chemoprophylaxis.

Presented by the Division of Medical Oncology, Department of Neoplastic Diseases and The Page and William Black Post-Graduate School of Medicine of the Mount Sinai School of Medicine (CUNY)

For Information and Registration:
Ezra M. Greenspan, M.D., Symposium Chairman
The Page and William Black
Post-Graduate School of Medicine
Mount Sinai School of Medicine
One Gustave L. Levy Place
New York, New York 10029

As an arganizatian for continuing medical educatian, The Page and William Black Post-Graduate Schaal of Medicine af the Maunt Sinai School of Medicine (CUNY) certifies that this cantinuing medical educatian offering meets the criteria far Categary I of the Physician's Recognitian Award af the American Medical Assaciation, provided it is used and completed as designed.

NEW YORK FERTILITY RESEARCH FOUNDATION, INC.

For the Investigation of
Problems of Human Infertility

The Institute provides a complete diagnostic and consultation service for infertile couples. Investigations are conducted by well-known specialists in conjunction with consultants in the various fields of medicine related to infertility.

Patients are returned to the referring physician after appropriate studies have been made, together with a complete detailed report of the findings of the Institute and its consultants and recommendations for therapy. Literature on request.

123 East 89th Street, N.Y., N.Y. 10028

Phone: TR 6-9300

BOOK REVIEWS

Current Pediatric Diagnosis and Treatment, 5th edition

C. H. Kempe, H. K. Silver, and D. O'Brien. Los Altos, California, Lange, 1978. pp. 1102. ($17)

Current Pediatric Diagnosis and Treatment has been around for a while and older editions are well known to most pediatric residents and teachers. It is a multiauthored text, but it is tightly edited and written by the Department of Pediatrics at the University of Colorado School of Medicine. It is a superior book. Its organization is simple, its index comprehensive and its format readable. Tables and diagrams are clear and there are many useful forms and flow sheets, especially those related to ambulatory pediatrics. It is current, with many references to articles published in 1977. With a few exceptions (treatment of peritonitis ignores anerobes; use of bone scan in osteomyelitis is omitted; no mention of constipation as a cause of encopresis) it is consistently an accurate reflection of modern pediatric knowledge and opinion. It is very practical. Its purpose is not to present pathophysiology, though often this is discussed well. Rather it seems to be a "how to" book. It serves this purpose admirably.

I strongly recommend the book to the practicing primary care physician (pediatrician or family practitioner). Quick reference to its short discussions will remind the physician of what he may have forgotten and update him on new facts. In this information-explosion era it is refreshing to have a succinct summary of current knowledge.

Richard H. Rapkin, M.D.

Basic Electrocardiography Handbook

Leonard J. Lyon, M.D. New York, Van Nostrand Reinhold Company (Litton Educational Pub.), 1977. Pp. 175. Illustrated. ($11.95)

This book contains all the necessary ingredients for a primary text on electrocardiography that any physician, medical student, paramedic, nurse, or laboratory technician would need. Even lawyers or judges who must be familiar with this field of medicine could benefit from this well-written handbook. There are sections on basic anatomy, physiology, arrhythmias, myocardial ischemia, infarction, pre-excitation, pacemakers, pericarditis, and others all tastefully presented yet concise and clear.

The most attractive facet of this volume is the large number (149) of good illustrations of various electrocardiograms, in keeping with that old axiom that "one picture is worth 1000 words." There is one minor criticism which can be made—the description of each electrocardiogram figure would be easier to follow if it were under each illustration rather than in the body of the text.

This handbook describes each subject so that the average practitioner can interpret most of his own office electrocardiograms correctly. Other texts may be more detailed but this one covers all of the commonly seen abnormalities that comprise 99 percent of all tracings. The book is a worthwhile addition to the library of those individuals listed above.

Manuel J. Rowen, M.D.

CONFIDENTIAL ADVICE
FOR
PHYSICIANS PRACTICE MANAGEMENT

WRITE TO

CROMWELL CONSULTANTS
ALBERT ABRAHAM, M.D.
11 CROMWELL DRIVE
CONVENT STATION, N.J. 07961

OCEAN COUNTY

5 Miles South of Toms River

NOW RENTING
NEW MEDICAL AND DENTAL ARTS BUILDING
GROUND LEVEL, 1400 sq. ft. (may subdivide)

General Dentist located in building
Excellent for Group or Solo practice

For more information
CALL (201) 657-7400

MEDICAL PRACTICES — ALL SPECIALTIES
APPRAISALS — SALE — TRANSFER — MANAGEMENT CONSULTANTS
Locational analysis and Feasibility Studies

Unique opportunities for Solo — Groups — Partnerships in *existing lucrative Medical Practices throughout U.S.*
Specialists in "Recruitments" of Medical and Paramedical Specialists for Hospitals, Pharmaceutical and Industrial positions all over U.S.

Call: (212) RX3-3597, 3630 or write:
DR. FREDERICK KATZ ASSOCIATES AGENCY, INC.
96-08 70th Avenue, Forest Hills, N.Y. 11375

IDEAL OFFICE LOCATION
TRENTON

1600 sq. ft. modern, fully carpeted, air-conditioned, parking, in clean Polish-American neighborhood in need of a general practitioner due to recent loss of 2 local physicians. Located 2 ½ blocks north of Helen Fuld Medical Center.

Information:
Lillian Simon
918 Brunswick Ave.
Trenton, N.J. 08618
or: (609) 883-2198

Emergency Physician

Overlook Hospital, a 540-bed teaching hospital affiliated with Columbia Presbyterian Medical Center, has an opening on its Emergency Medicine Panel. We offer a full-time position with a fixed schedule. (Here is a possibility of permanent weekends, if desired.)
Competitive salary, excellent benefits and teaching opportunities, in the pleasant residential community of Summit, New Jersey. We require interest in a career in Emergency Medicine, emergency medicine experience and appropriate training. Send c.v. to Danial J. Erlich, Personnel Director.

OVERLOOK HOSPITAL
193 Morris Ave.
Summit, N.J. 07091

WE HAVE GROWN! HAVE YOU?
DOCTORS NEEDED!

Ocean County Population

1960	1975	1980
108,000	275,000	325,000

N.J. Standard: 1 physician per 1,000 pop.
Ocean County Today: ¾ physician per 1,000 pop.
Ocean County Needs 70-80 Doctors NOW!

We have a 1,200 sq. ft. office available which features a reception area, general treatment area, two examining rooms, surgery room, doctors lounge, private office, and private bathroom. Ideally suited for general practitioner.

CALL (201) 244-7227 FOR INFORMATION



INTERNIST—ONCOLOGIST

Join with two Internists affiliated with a 350 bed community hospital in Southern, New Jersey. Immediate Opening.

Proximity to New York, Philadelphia, Atlantic City.

Salary range $40,000 with comprehensive fringe benefit package. New Jersey license required.

Reply Box No. 72,
c/o THE JOURNAL
315 West State St.
Trenton, N.J. 08618

NEO-NATAL FELLOWSHIP

Position available for the Neo-Natal Fellow. Flexible or state license required with reciprocity in New Jersey. Large regional center, medical school affiliation.

CV to: Box 64
c/o JOURNAL MSNJ
315 West State St.
Trenton, N.J. 08618

PHYSICIANS
GENERAL OR FAMILY TYPE PRACTITIONERS

Establish new solo or group practices in excellent economic residential New Jersey area near Philadelphia. Substantial financial guarantees and management assistance provided by area physicians. Please write giving type of practice desired and send current C.V. to

Box No. 70 Journal of Med. Soc. of N.J.
315 W. State St., Trenton, N.J. 08618

WANTED
PRIMARY CARE (General Practitioners)

To locate in private practice throughout Ocean County (a rapidly growing County in New Jersey) in needed areas. Excellent place to live and practice. Four expanding hospitals and one Rehabilitation Hospital. Excellent recreation area. For information, please contact:

Ocean County Primary Care
Physician Recruitment Committee
Administration Building
Hooper Avenue
Toms River, N.J. 08753

RESIDENCY IN PHYSICAL MEDICINE AND REHABILITATION

Dynamic, young program with balanced academic and clinical emphasis under the supervision of 10 physiatrists. Three year program and integrated internship/residency with opportunity for research and pursuit of special interests both in medical school and private hospital settings. Stipends from $13,300 to $15,200 depending on qualifications. We will pay for visits in selected cases. Equal Opportunity/Affirmative Action Employer. Telephone or write for information to:

John F. Ditunno, Jr., M.D., Director
Department of Rehabilitation Medicine
Thomas Jefferson University Hospital
11th and Walnut Street
Philadelphia, Pa. 19107
Telephone: (215) 829-6573

YOU'VE STUDIED HARD TO BE A DOCTOR. BE A DOCTOR.

The U.S. Navy can offer you the kind of practice you studied so hard for. Devoting your time solely to the practice of medicine.

As a Navy physician, we'll give you a challenging and rewarding practice—a practice with a minimum of paperwork and no administrative overhead. It's a practice complete with excellent facilities and support personnel.

In addition, you'll find a Navy practice allows you time to spend with your family. Associate with other highly motivated physicians. Further your schooling. Even enjoy 30 days' paid vacation every year.

All this, plus a starting salary of $30,000 a year—more, depending on your experience.

If it all sounds like the practice you studied so hard for, call us for more information. Just contact:

Harriet E. Zech, Lieutenant Nurse Corps, U.S.N.
Gateway 1 Building, Newark, N.J. 07102
Telephones: 201-645-2109; 201-645-2181

BE THE DOCTOR YOU WANT TO BE. IN THE NAVY.

TREAT THE SYMPTOMS IN THE GERIATRIC PATIENT

APATHY • IRRITABILITY
FORGETFULNESS • CONFUSION



Cerebro-Nicin® CAPSULES

A GENTLE CEREBRAL STIMULANT & VASODILATOR FOR GERIATRIC PATIENTS

Each CEREBRO-NICIN® capsule contains:

Pentylenetetrazole	100 mg.
Nicotinic Acid	100 mg.
Ascorbic Acid	100 mg.
Thiamine HCl	25 mg.
l-Glutamic Acid	50 mg.
Niacinamide	5 mg.
Riboflavin	2 mg.
Pyridoxine HCl	3 mg.

AVAILABLE: Bottles 100, 500, 1000

SIDE EFFECTS: Most persons experience e flushing end tingling sensetion efter teking e higher potency nicotinic ecid. As e secondery reection some will complein of neusee, sweating end ebdominal cramps. The reaction is usually transient.

INDICATIONS: As e cerebrel stimulent and vasodilator.

RECOMMENDED GERIATRIC DOSAGE: One cepsule three times daily adjusted to the individual patient.

WARNING: Overdosage may cause muscle tremor and convulsions.

CONTRAINDICATIONS: Epilepsy or low convulsive thres hold.

CAUTION: Federal law prohibits dispensing without prescription. Keep out of reach of children.

Write for literature and samples . . .

BROWN THE BROWN PHARMACEUTICAL CO.
2500 W. 6th St., Los Angeles, Calif. 90057

LIVINGSTON MEDICAL BUILDING

124 East Mt. Pleast Avenue
1/2 mile to Route 280

DAVID FROEHLICH
46 Cedar St.
Millburn, N.J. 07041
Day (201) 887-8900; Evenings (201) 379-2108

Occupancy July 1978
Structural Allowance
Ample Parking

Customized Suites
Elevator
Bus Service

CLASSIFIED ADVERTISEMENTS

CARDIOLOGIST—Seeks association with cardiology group or hospital based practice. 34, certified ABIM and suspecialty boards cardiovascular disease. University trained in all non-invasive and invasive techniques. Available immediately. Martin E. Kraus, 9 Brookside Avenue, Fair Haven, New Jersey 07701. (201) 747-9230.

FAMILY PRACTITIONER — Ambitious, boarded. Available to assist busy resort General Practitioners this summer. Write Box No. 58, c/o THE JOURNAL.

GENERAL SURGEON—University trained with Vascular and Endoscopy; Board eligible; 35, FMG, FLEX. Available immediately. CV upon request. Write Box No. 54, c/o THE JOURNAL.

INTERNIST—Young Internist, board eligible. Seeks group or partnership in Northern New Jersey, suburb or city. Available July 1978 and certified September 1978. David T. Klein, M.D., 4750 Bedford Avenue, Brooklyn, New York 11235. (212) 743-1839.

NEUROLOGIST—Seeks solo, partnership or group. Available July 1978. Board eligible, University trained in EEG, CAT, Angio. Graduate Silesian School of Medicine, 1967, Poland. J. J. Golnik, M.D., 4 Park Avenue, Apt. 8 E, New York, New York 10016.

PEDIATRICIAN—Seeks position in group practice, partnership or solo in Northern or Central New Jersey. Board certified, bilingual. Available August 1978. Write Box No. 45, c/o THE JOURNAL.

PEDIATRICIAN—FMG, FLEX, board eligible, university trained, U.S. citizen. Desires solo, partnership, group, house staff, clinic. Terminate Air Force, August 1978. Leo P. Pajarillo, M.D., 2503 A Atlas Drive, Rome, N.Y. 13440.

NEEDED—ANESTHESIOLOGIST—Board Certified or board eligible, fee-for-service group practice, in South Jersey 500 bed Community Hospital. Hospitalization, Pension Plan and Malpractice paid, plus other fringe benefits. Send complete Curriculum Vitae to Box No. 68, c/o THE JOURNAL.

NEEDED—Emergency Physician—excellent opportunity, Central New Jersey, university community, Academically oriented, professionally and financially rewarding. Six-man group. Call E.V. McGinley, M.D. (201) 277-0466.

NEEDED—Orthopedist—Board certified preferred to join an established orthopedist in shore community. 100 bed hospital. Reply to P.O. Box 76, Manahawkin, New Jersey 08050.

NEEDED—ASSOCIATE by Female Pediatrician with active solo practice located in pleasant, growing Central Jersey Shore Community. Desires board eligible associate with view toward full partnership in future. Salary and terms open. Write Box No. 73, c/o THE JOURNAL.

NEEDED—Pediatrician—Board certified or eligible to join well established growing suburban practice in southern New Jersey. Twenty minutes from Philadelphia and one hour from shore resorts. Immediate opening. Write Box No. 63, c/o THE JOURNAL.

NEEDED—PHYSICIAN-INTERNIST—with specialty in Cardiology. Must be certified in internal medicine and have at least 2½ years fellowship in Cardiology already completed. To associate with private practitioner seeing and treating patients in office and at Mercer Medical Center, Trenton, New Jersey. Must re-locate in Trenton area. 48 hours per week, $35,000 per year. Write Box No. 74, c/o THE JOURNAL.

PRACTICE AVAILABLE—General Practice; established 40 years, retiring physician. Available immediately in South Jersey. Write Box No. 71, c/o THE JOURNAL.

PRACTICE AVAILABLE—Orthopedic Surgery Practice; For Sale to board certified orthopedist. Gross $200,000.00+. Fully equipped office with furniture and x-ray. Write Box No. 69, c/o THE JOURNAL.

PRACTICE AVAILABLE—Pediatric Practice; For Sale. Well established in Northeastern, New Jersey. Generates immediate substantial income. Fully equipped and furnished office for rent. Ready access to Community and Medical Center Hospitals. Terms negotiable. Will introduce. Available July 1st. Write Box No. 67, c/o THE JOURNAL.

PSYCHIATRIC PRACTICE FOR SALE—Includes successful private and hospital practice with excellent reputation in suburban area of Philadelphia. Spacious clinic presently facilitates five staff members, secretarial and bookkeeping personnel and provides 8 consultation rooms, 2 waiting rooms, 2 large group meeting rooms, kitchen, 3 baths and parking for 30. Area 30 minutes from heart of Philadelphia and 1 1/2 hours from NYC. Practice may be purchased with or without building. Qualified applicants contact Box No. 62, c/o THE JOURNAL.

FOR SALE—Home/Office; Glen Ridge; Family practice 38 years. Split-level home and office built in 1955. Residential area. Excellent schools. Office: 8 rooms equipped and furnished. Home: 8 rooms. Central air-conditioning. Retiring. Will introduce patients. Price over $100,000.00 Contact Box No. 51, c/o THE JOURNAL.

FOR SALE—Plainfield; Gracious home and office. Favorable location and zoning. 6 rooms, file space and lavatory in office area. 7 rooms and 3 baths in residential area; also 2 storage rooms, patio, and detached 2 car garage. Building covers about half of a large corner lot. Price $79,000. Contact (201) 756-5800.

OFFICE SPACE—Fair Lawn; 1581 square feet in modern multi-specialty building opposite Fair Lawn Memorial Hospital and near several open staff hospitals. Owner occupied, generous parking, New York and Paterson buses on corner. Most suitable for various medical fields but unique opportunity for G.I. specialist. Joachim Oppenheimer, M.D., 11-26 Saddle River Road, Fair Lawn, New Jersey 07410. (201) 796-9200.

OFFICE SPACE—Modern building with x-ray, laboratory, five other practitioners. "Cheap" Less than going rents in area. Contact Box No. 36, c/o THE JOURNAL.

OFFICE SPACE—Metuchen; Medical office fully equipped. 5 rooms, waiting, consultation, 3 treatment, darkroom. Centrally located, 5 minutes to JFK Medical Center. Close to 4 other hospitals serving residential and industrial area. Call (201) 549-2172, evenings.

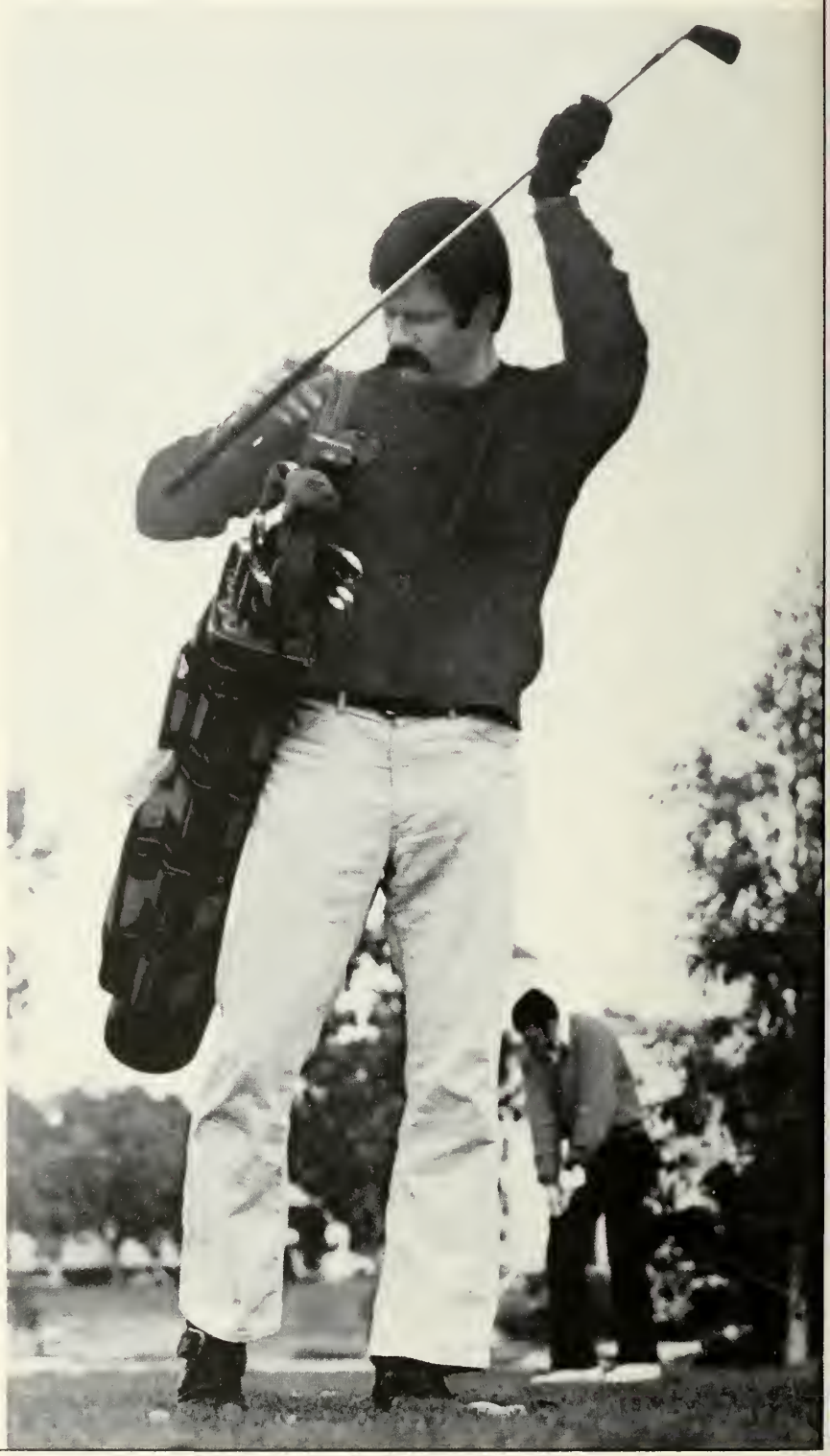
OFFICE SPACE—Moorestown, Victoria Medical Arts Building. New custom built medical offices for rent near Route 295 and Route 38 and Philadelphia. Good parking. Excellent location. Applying for solar heating. (609) 235-2651.

OFFICE SPACE—Princeton Hopewell area. Ideal for family practitioner. 1000-2000 square feet. Call (609) 466-1569 or write John J. Orlando, Route 31, Hopewell, New Jersey 08525.

Information for Members—RATES:—$5.00 per insertion up to 25 words; 10 cents each additional word. Payable in advance. WORD COUNT: Count as one word all single words, two initials of a name, each abbreviation, isolated numbers, groups of numbers, hyphenated words. Count name and address as five words, telephone number as one word, and "Write Box No. 000, c/o THE JOURNAL" as six words. COPY DEADLINE: Fifth of preceding month.

AS A DOCTOR, DO YOU HAVE TIME FOR THIS?

It's not all fun and games, but a Navy Doctor has the opportunity to make of it what he can. This could be you! For complete details, see your local Navy Recruiter, or call the Medical Recruiter, toll free, at 800-841-8000



131803

ST

344508